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ABSTRACT

The case for and consequences of redefining poverty were considered. The analysis focused on the following issues: (1) remeasuring poverty in a time of prosperity; (2) alternative poverty measures; (3) consequences of and enhanced poverty threshold; (4) assessing the performance of employment and training programs in achieving income adequacy standards for participants; and (5) the adequacy of the earnings of demographic and state subgroups of Job Training Partnership Act terminees. The analysis demonstrated that, to give the term "poverty" the same realistic meaning it carried in 1964, the current official index must be raised to 140% of its current level. To represent 50% of the median pretax income of families containing two to four persons now as in 1964, the index must be raised to 165% of the current standard. It was recommended that the poverty threshold be changed accordingly but varied by state to account for cost of living differences. (Sixty tables/figures are included. Information on the assignment of family poverty thresholds to individual metropolitan and nonmetropolitan areas across the United States in 1995 and information about various estimates related to recipients of services under various titles of the Job Training Partnership Act are appended. Sixty-two endnotes are included.) (MN)

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Poverty Ain't What it Used to Be

The Case for and Consequences of Redefining Poverty

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Policy Issues
Monograph 99-03

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June 1999

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THE CASE FOR AND CONSEQUENCES OF REDEFINING POVERTY

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Policy Issues Monograph 99-03

June 1999

Sar A. Levitan

The Sar Levitan Center for Social Policy Studies at the Johns Hopkins University was organized in 1995 to commemorate and extend the works of Sar A. Levitan, public policy commentator extraordinaire who died in May 1994 after 44 years of selfless public service on the national scene.

Levitan came to Washington in 1950 after military service and completion of his Ph.D. in Economics at Columbia University to serve on the staff of the Korean era Wage Stabilization Board. He remained thereafter with the Legislative Reference Service, researching and enlightening at congressional request issues related to labor relations, employment and economic development. On loan from LRS, he served on the staff of Senator Eugene McCarthy's 1959 Select Committee on Unemployment, in 1960-61 as Deputy Director of the Presidential Railroad Commission and then as advisor to Senator Paul Douglas in the formulation of the Area Redevelopment Act, the start of the Kennedy New Frontier.

Aware that pioneer social policies would need friendly critics to keep their administrators focused, he obtained a grant from the Ford Foundation which the Foundation itself has described as the longest lasting and most productive in its history. For thirty years thereafter, he was to advocate, evaluate, criticize, or praise (wherever and whenever deserved) every significant legislative act, policy and program related to employment, education, training or poverty during those tumultuous years.

Levitan was not satisfied with a 36-page bibliography of books, monographs, articles, congressional testimony and speeches. When cancer ended his life just short of his eightieth birthday, he left the bulk of his life savings to the National Council on Employment Policy, an organization he had helped organize and then single-handedly perpetuated, charging his closest friends to continue his life's crusade.

The NCEP in turn funded the Sar Levitan Center for Social Policy Studies, which is the sponsor of this publication series.

Therefore to Sar A. Levitan this publication is lovingly dedicated.

About the Authors

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Summary

In 1964 this nation declared war on poverty. To determine who was and who was not poor, it chose to establish the official poverty line for a family of four at a level equal to 50 percent of the median pre-tax income for a family of that size. Thirty-five years later the federal government's official poverty index has so deteriorated in comparative purchasing power that it now represents only 30 percent of the median pre-tax income of the average-sized American family. That cold statistic has overpowering meaning in the real life experiences of this nation's low income families. This monograph examines alternative replacement measures for that faulty official index, explores the practical and policy implications of each, advocates a preferred approach and demonstrates the potential impacts on major employment and training programs on behalf of the poor. It concludes that:

~To give the same realistic meaning to the term "poverty" as it carried 35 years ago, the current official index would have to be raised substantially. In order to afford the same quantities of goods and services now as then it would have to rise to 140 percent of its current level. However, to represent 50 percent of the median pre-tax income of families containing two to four persons now as it did then that increase would have to be to 165 percent of the current standard.

~To reverse this persistent deterioration in the standard of living represented by the poverty line and maintain the same relative relationships between the incomes of the poor and nonpoor over time, the official poverty threshold should become 50 percent of the pre-tax median family income, re-measured annually as the average of the preceding three years.

~To assess where any particular household stands in its relationship to that new poverty threshold, all in-kind income (food stamps, housing subsidies, etc.), as well as cash income (including earned income tax credits), should be included and the out-of-pocket costs of earning income (such as child care and payroll taxes) should be deducted in calculating family income.

~There is enough variation in the costs of living across the nation that state by state or local area poverty thresholds should be established based on differential housing costs.

~The number of families and the percentage of U.S. families living in poverty would be approximately doubled by raising the poverty threshold to 165 percent of its current level.

~In comparison to the present socioeconomic and demographic mix among those designated as poor, raising the poverty threshold to that extent would tend to increase the proportion of the poor who are elderly, white, nonHispanic, have high school diplomas but not college degrees, and who are employed.

~General recognition of the deterioration of the poverty standard is demonstrated by the fact that most of those programs for which eligibility is at least in part dependent upon poverty status use some multiple of the poverty index such as 133 percent or 185 percent of the poverty line as the determinant for eligibility.

~The budgets for antipoverty programs would not be greatly directly affected by the proposed definitional change since eligibility for only those programs which are entitlements such as Supplemental Security Income and Medicaid are determined by poverty status. Temporary Assistance for Needy Families (TANF) which replaced Aid to Families with Dependent Children (AFDC) as the primary source of public assistance income is no longer an entitlement.

~Non-entitlement antipoverty programs already have such distortions between the pools of eligibles and budgets that only small proportions of those eligible can be enrolled. Raising the poverty threshold would increase those proportions and, hopefully, increase the political pressure to boost the appropriations for those programs proven most effective in restoring self-reliance and boosting households out of poverty. However, any increase in antipoverty expenditures would not automatically occur without congressional action.

~Workforce development programs dedicated to enabling the poor to earn their way out of poverty would need to concentrate on training for

occupations paying above the new poverty level. Previous publications in this series have already shown how to do that.

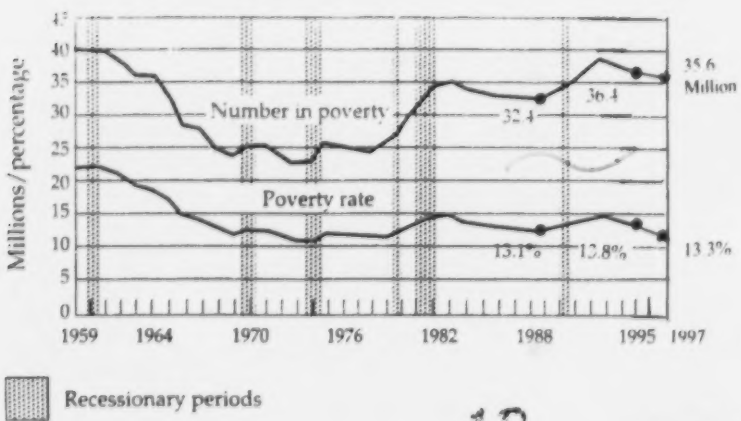
For all of these reasons, the poverty threshold, at the minimum, should be changed to the same relationship it had to the median family income in 1964, though varied by state to account for cost-of-living differences. Anti- poverty policy will have no credible base until such measurement changes have occurred.

Chapter 1

Re-Measuring Poverty in a Time of Prosperity

"It was the best of times," and in the United States of America in mid-1999 no one need add the second half of Dickens' couplet, "it was the worst of times." Unemployment had declined to the lowest point in a quarter century, yet there was still no bubbling of inflationary pressures. Tight labor markets were finally putting upward pressure on real wage levels, even at the bottom of the wage distribution. However, labor productivity was growing more rapidly that it had for many years so that unit labor costs were restrained. The roiling of Asian economies had left U.S. stock markets relatively unperturbed. The tightening of labor markets and the sagging of some profit rates had upset neither investors nor consumers. And poverty rates among the nation's residents? Well, they were the lowest they had been since the late 1980s, had been in steady decline for four years and manifested only a little over one- half the incidence (though nearly the same number in a much larger population) than prevailed at the time war was declared on poverty 35 years before (Figure 1.1)

Figure 1.1
Poverty Trends, 1959-97



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So why raise the issue of poverty's measurement in such affluent and happy times? For one thing, we made progress in our anti-poverty war in part by following Senator George Aiken of Vermont's Vietnam strategy: "Declare victory and go home." As we shall show, the federal government's poverty measurements have so deteriorated that return to a poverty standard designed to bring the relative standards of living of the poor and nonpoor into the same relationship that existed in 1964 would nearly double both the number and percent of persons and families declared to be poor today. For another, we not only mislead ourselves about our progress by using faulty measures; we also misguide important economic policies. The federal poverty income guidelines serve manifold purposes in public policy. They measure progress in anti-poverty efforts. They serve as an evaluative guide in determining which anti-poverty strategies work and which do not. They provide comparative indicators of the relative well-being of various socio-economic groups. They determine personal and family eligibility for many federal and state programs. They provide benchmarks for appraising the success of employment and training programs in achieving income adequacy standards. They guide the distribution of federal aid among states and localities. None of these purposes is well-served by a deteriorating set of poverty standards.

But why fix it now when all seems to be going so well and fewer are being impacted by poverty? When will it be easier? The lower the poverty rate, the less the budgetary consequences of revision. Why not grab the opportunity to revise the procedures, measures and numbers now so that their accuracy can be restored when the political sensitivity of anti-poverty policy rises again, as it most certainly will?

This monograph traces the history and describes the structure of the current poverty measures, illustrates their weaknesses and consequent distortions, explores alternative poverty measures, and advocates a new approach to better fulfill the various requirements imposed upon this important public policy standard. The alternative poverty measures are used to estimate a new set of poverty rates for persons and families in the U.S. in the 1990s. These new poverty measures are estimated for a number of demographic and socioeconomic subgroups and for residents in various regions and states. These new poverty measures are also used to establish earnings benchmarks for assessing the success of the

adult workforce development programs of the Job Training Partnership Act (JTPA) in achieving adequate incomes for the families of program participants. A national data base on the early post-program experiences of terminees from JTPA's Title II-A and Title III programs is relied upon to estimate the proportion of termineees who obtained weekly earnings high enough to achieve the alternative income adequacy thresholds. That information buttresses some of our earlier work and is provided as a guide to the new Workforce Investment Act and other workforce development programs.[1] We seek to persuade those responsible for workforce development programs to forego the training for low wage occupations which has dominated the employment and training program past and, instead, pursue a future of training for occupations offering family-sustaining wages.

Origins of the Current Measure

The United States did not discover poverty anew when it chose to declare war on it in the mid-1960s. Gordon Fisher, in a Spring 1998 article in Focus, a publication of the Institute for Research on Poverty at the University of Wisconsin, traces efforts to both define and measure the poverty phenomenon back to 1871 when the Massachusetts Bureau of Labor Statistics associated a $2 daily wage with "poverty or want," (though one of us remembers how eagerly his father sought work at that wage throughout the 1930s and how proud that coauthor was of himself when he attained that wage level as a teenager near the end of that depression decade).[2] Fisher describes the pre-1900 meaning of poverty as "pauperism—the state of being dependent on relief or private charity," transitioning after the turn of the century to "insufficient income, regardless of the source of that income or the reasons for the insufficiency." The exact boundary between sufficiency and insufficiency has never and can never be precisely defined, but, beginning with a 33 item "market basket"for a five person family in Iowa in 1891 held to comprise the "necessary living expenses of laboring men with families,"measuring poverty has become a task of deciding upon and surveying the cost of a standard market basket. What goods and services that basket should contain and at what quantity and quality has always been the target of a search for consensus. Examples of annual incomes advocated for average size families, according to Fisher, have been $549.84 in 1891, $460 a year in the north and $300 a year in the

south in 1904, $1500 in 1934 (when one of us remembers the annual income of his family being $300), $780 in 1937, and $2000 in 1957.

All of these earlier determinations could be subjects of academic debate, but the poverty line introduced during the 1960s would undergird real public policies and guide actual programs. The 1964 Economic Report of the President advocating the new "war on poverty" proposed $3000 as the poverty level family income based on such considerations as the minimum wage, public assistance levels, and federal income tax requirements. That was replaced in May 1965 with the food market basket approach which prevails to this day. The current measure was derived in 1964 from a 1955 Agriculture Department survey that estimated the cost of an "economy food plan" designed for "temporary or emergency use when funds are low," not one expected to maintain health or nutrition over time. Because families of three or more persons—all families on the average, not just the poor—spent one-third of their income on food at the time, the analysts set the poverty level for these families at three times the cost of the economy food plan. A family of two adults and two children was the standard. The multiplier was set at higher than three for smaller families and persons living alone in order to compensate for their relatively larger per capita fixed expenses. The poverty threshold was weighted by family size, with a larger family having a higher poverty threshold, and by the age of the householder, with an elderly head presumed to need 10 percent less than those under 65 years of age. On that basis, when first established in 1964, the poverty threshold for a family of four was an annual income of $3,100. The result of that calculation with some adjustments for family size and age structure became the original upper boundary of poverty.

That "economy food plan" was then etched in stone for at least the next one-third of a century, the poverty guideline advancing annually only by changes in the overall Consumer Price Index for All Urban Consumers (CPI-U). Hence, the poverty threshold in use today assumes that a low income family survives on the same food menu, both in mix and amounts, that it ate in 1955, that the relative costs of specific items within that food basket are unchanged, and that food costs are still the same proportion of a family's living costs in 1998 as in 1964. Changes in the poverty thresholds over the intervening years are illustrated in Table 1.1.

Table 1.1
Federal Poverty Thresholds, 1964-97

Family size	1964	1968	1975	1979	1989	1993	1995	1997
1	$1,580	$1,748	$2,800	$3,629	$6,310	$7,363	$7,761	$7,890
2	2,050	2,262	3,600	3,723	8,076	9,414	9,935	10,610
3	2,440	2,774	4,300	5,727	9,225	11,522	12,156	13,330
4	3,130	3,553	5,500	7,412	12,674	14,763	15,570	16,050
5	3,685	4,188	6,500	8,775	14,990	17,449	18,407	18,770
6	4,135	4,706	7,300	9,915	16,921	19,718	20,808	21,490

The Challenges of Defining and Measuring Poverty

Difficult as the latter may be, defining poverty is even more problematic than measuring it. Poverty, from an economic standpoint, can be defined as experiencing economic deprivation—to be deprived of an adequate level of consumption of goods and services. However, because standards of adequacy vary with societal wealth and public attitudes toward deprivation, there is no universally accepted definition of basic needs. The annual amount of income necessary to provide for any agreed-upon set of basic needs is equally difficult to determine. For example, government programs such as free education and medical care or subsidized food reduce the amount of cash income required to support a family. Differentials in the cost of living between urban and rural areas or among metropolitan areas or regions within a country raise the income requirements for some people and lower them for others. At the same money income level, some families have to pay taxes on their incomes and others do not, depending upon the sources of their incomes and the tax policies of the jurisdictions within which they live. Some have to pay for care of their children while they work and others do not. It is no wonder, then, that experts differ over the purchasing power necessary for an individual or family to achieve a minimally acceptable living standard.

Others argue that income is not the proper measure: consumption is. Poverty is to be deprived of the ability to consume adequate goods and services, and income is merely one means for acquiring them. Personal choices as well as family status, public policies and geography may result in quite different standards of living from comparable money incomes. From the standpoint of public policy, however, there must be some barometer which can be used to measure whether matters are getting better or worse over time, some means of determining who needs

help and who should be considered self-reliant, and some measure to help test what programs do and don't work in alleviating poverty.

Even though the poverty thresholds have been adjusted to reflect changes in the level of consumer prices, it is too much to expect that consumption patterns and relative prices would stay constant over such a long period of time. By the late 1980s, the costs of other essentials had risen relative to food costs until food constituted only one-fifth of the average family's cost of living. Multiplying the cost of that original food basket by five rather than three would raise the poverty threshold by two-thirds. Housing costs, which were in the mid-1960s assumed to be about one-quarter of a low income budget, are now closer to one-third and rising. Shifting to a multiplied housing cost base rather than the food cost base would raise the poverty threshold by about one-half.

However, even with those changes, the consumption levels of the poor would have progressed less than those of the rest of the population. When it was introduced one-third of a century ago, the poverty index established by the food cost criterion was about one-half of the national median post-tax family income for a four-person family. Now it is only slightly more than one-third. Only a poverty threshold retained at one-half of the median income as it was in 1964 could allow the poor to share society's economic progress over that long period of time. However, given that the index has been increased during the intervening years based only on changes in the consumer price index rather than on the changing balance of food costs, the issue is more complex than that. For instance, many economists believe that the cost of living index estimated by the Bureau of Labor Statistics in the intervening years has exaggerated somewhat the actual increases in the cost of living during some of those years, especially between 1973 and 1982.

In addition, the poverty index, although offering a constant yardstick to measure progress, is imprecise at best. By varying only for family size and age composition, the threshold ignores both higher prices in inner cities (where many of the poor are concentrated) and the unpurchased food and other resources available to farmers. The complexity of adjusting the poverty index to reflect regional and local price differences has impeded further refinements, yet housing costs particularly vary widely across the country, as will be noted in a following section.

It remains important to recognize that our official poverty statistics provide only a rough guide to income inadequacy. Overstating inflation, as the consumer price index is accused of doing, could understate progress against poverty. The household survey used to ascertain the annual poverty rate tends to undercount family income slightly because of under-reporting and therefore also exaggerates the extent of impoverishment. On the other hand, census enumerators have a more difficult time contacting the homeless, race-ethnic minorities, immigrants and other populations whose inclusion would increase the poverty count, though not the level of the threshold.

The reliance on cash income, without regard to its source, also tends to distort the official poverty count. By focusing solely on a family's gross money income, the poverty index fails to account for differences in tax burdens and other expenses that affect the amount of disposable income available to meet basic needs. A family with labor market earnings might be classified as non-poor, yet have its take-home pay reduced by taxes to a point below the tax-exempt disposable transfer income received through public assistance, Social Security retirement and disability benefits by a family classified as poor. Although the sum of food stamps, health care, subsidized housing and other needs-tested assistance now account for more than three-fourths of all federal aid to the poor, the value of this in-kind aid is ignored in the official poverty count. Table 1.2 illustrates this fact with data from 1979-92, taking into account the cash value of food and housing benefits received by the poor. When that analysis is extended to 1995 but without the full detail available for the earlier years, all social insurance programs combined would cut the poverty rate by 6.9 percentage points. All means-tested benefits combined would reduce the poverty rate by another 2.9 percentage points. The impact of the enlarged earned income tax credit (EITC) would cut another 0.5 percentage points, for a total reduction in the pre-transfer poverty rate of 10.4 percent. Yet the poverty count based only on cash income is the one generally used, in part because it has the advantage of continuity, making it easier to compare the ups and downs of poverty problems over the years.

Table 1.2.
Effects of Federal Transfers and Taxes on the Poverty Rate, 1979-92

Year	1979	1983	1989	1990	1991	1992
Cash income before transfers	19.2	22.8	19.9	20.5	21.8	22.5
Plus social insurance (other than Social Security)	18.3	21.4	19.3	19.7	20.8	21.4
Plus Social Security	12.8	15.9	13.8	14.4	15.2	15.6
Plus means-tested cash transfers (official measure)	11.6	15.1	12.8	13.5	14.2	14.5
Plus food and housing benefits	9.7	13.7	11.2	11.8	12.4	12.9
Less federal taxes	10.0	14.6	11.8	12.3	12.6	13.0
Combined effect (percentage points)	-9.2	--8.2	-8.1	-8.2	-9.2	-9.5

Source: House Committee on Ways and Means, *1994 Green Book: Background Material and Data on Programs within the Jurisdiction of the Committee on Ways and Means* (Washington, D.C.: U.S. Government Printing Office, 15 July 1994), 1172-73.

Those who receive health insurance from their employer and the non-working who are eligible for Medicaid or Medicare have more to spend on other needs than those who have to buy medical care. The same can be said for the costs of transportation to work, of clothing to attend work or for child care to be able to work. All of these factors are important both in deciding who is and who is not poor and how many are poor.

The exclusion of family assets in official poverty calculations further weakens the link between a family's poverty income status and its ability to secure an adequate standard of living because a small proportion of households with limited incomes can rely upon savings or property assets to fulfill basic needs. As the poverty income threshold was promulgated in 1964, the Aid to Families with Dependent Children (AFDC) program existed, but many of the programs aiding low income families that were to be the products of the coming "war on poverty" did not. Medicaid, food stamps, housing subsidies and the Earned Income Tax Credit are examples. The poverty thresholds were not affected, but these are in-kind additions to the incomes of some families which, if counted, might lift them over the existing threshold. Thus, current poverty numbers are considered exaggerated by those who note the failure to consider in-kind benefits as income and undercounted by those who cite the costs of earning.

Public opinion surveys and consumer expenditure surveys which have asked members of various populations what it actually costs to live at a minimum acceptable life style all come up with annual requirements which are more than double the current poverty threshold. The point also has been made that not income but consumption should be the measure of poverty, though that is even more difficult to measure.[3] Those considerations are obviously relevant to the policy judgement whether the war on poverty is being won or lost, as well as who needs what assistance. For these reasons, the distinctions between the poor and the near-poor are often loose and imperfect ones.

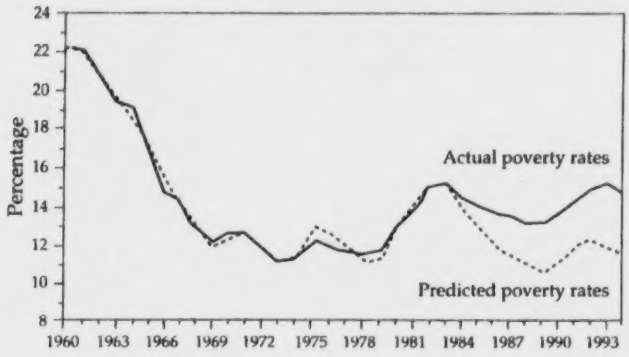
The adequacy of the official standard is also often questioned because it provides an absolute or static rather than a relative measure of poverty in America. Adjustments are made to reflect changing price levels and not for productivity gains, rising standards of living or changes in aspirations. For example, a home without indoor plumbing-the norm in earlier generations-is now considered substandard or unfit for habitation. Yet such shifts in societal norms and expectations, driven by real income gains achieved through greater productivity, are not captured by a static poverty measure that is adjusted only for changes in the cost of living over time. Note for instance the perceptions of federal politicians during the mid-90s as they advocated a "middle class" tax cut, but could not decide whether to set its ceiling at an $85,000 or a $100,000 annual income, even though any statistician could have told them the median family income in the United States was less than $40,000.

A flexible or relative poverty index pegged to median family income would reflect productivity gains as well as changes in the cost of living. For example, if the poverty threshold were set at 50 percent of the median family income for a family of four, the poverty threshold for 1994 would have been $23,378 or 54 percent higher than the official level and the poverty rate would have been 22.6 percent rather than the official 14.5 percent. Thus, because the poor have not kept pace in income growth with the rest of the population over the past two decades, their share of the national income has declined substantially.

Figure 1.2 illustrates the extent to which the poor have failed to profit from economic growth in more recent years. The dotted line traces

the correlation over the years between the poverty rate and economic indicators such as unemployment, inflation, real income, and government transfers. The boxed line for 1983-94 predicts what would have happened to the poverty rate had the same relationship to these indicators prevailed while the dashed line portrays actual poverty rates. As unemployment fell, inflation lessened and government transfers shrank during the post-1983 period, the poverty rate stayed high reflecting a marked departure from past relationships.

Figure 1.2.
Predicted vs. Actual Poverty Rates



Source: Mishel, Bernstein and Schmitt, *The State of Working America*, 1996-97,p. 294 .

Static and relative poverty indexes address two distinctly different concerns, and it is actually possible for one index to show an increase in poverty while the other indicates a diminution. A static measure like the official index reveals how the fortunes of low-income households have changed and demonstrates that we made substantial progress during the 1960s and early1970s in lifting families above a fixed (albeit somewhat arbitrary) minimum income standard but have regressed since then. A relative poverty measure gauges shifts in income distribution, often offering a reminder that we have made little progress in sharing the benefits of a prosperous economy more equitably. The widely accepted official poverty standard , as a static measure, provides a sense of continuity in assessing how low-income Americans are faring. A relative measure offers an alternative and we believe sounder perspective,

though it too has some practical limitations. For example, setting a program eligibility guideline at half of the median income might make it more difficult to target limited resources to the most needy. Nevertheless, after the passage of more than one-third of a century, it seems worthwhile to shift to a relative measure or at least to establish a new static measure for comparisons through the years ahead.

Understanding of the level and causes of poverty also can be enhanced through the use of measures that link poverty and employment data and provide a more comprehensive picture of labor market conditions and problems. The official poverty index alone fails to reveal whether the poor suffer deprivation as a result of low wages, lack of job opportunities, or nonparticipation in the labor force. A labor market-related economic hardship measure could shed light on these important questions, yielding valuable information on levels of employment and earnings among the poor as well as on the extent of deprivation among the unemployed and underemployed. Reporting on Labor Day 1979, the National Commission on Employment and Unemployment Statistics chaired by Sar Levitan recommended the launching of such a "hardship index." In response to what became known thereafter as the Levitan Report, the U.S. Bureau of Labor Statistics published annual reports on "employment problems and economic status" for the years 1979-82, dropping the series thereafter for lack of public and professional interest. In 1983, the Census Bureau inaugurated a survey of income and program participation which provides some data linking economic hardship with labor force status. Then in 1989 BLS began publishing an annual report called "A Profile of the Working Poor," the first covering data from 1987 and the 1996 report covering data from 1994.[4] The focus is on workers who spent more than half the year in the labor force, either working or looking for work, but remained in poverty. In 1994 such workers numbered 7.7 million or 20 percent of the 38.1 million persons in the Census Bureau poverty count.

Such data clarify the point that the incidence of poverty in the United States extends well beyond the economically dependent into working families. Haveman and Buron have calculated that, even if the adult members of every American family were making the fullest use of their physical and human capital in the labor market, 6.7 percent of the population would still be poor. In other words, the state of the labor mar-

ket, combined with the earning capacity of the population, has created a situation in which more than one out of fifteen Americans must be poor, no matter how hard they work.[5]

Advocacy of Remeasurement

That the existing poverty measures are outmoded is a surprise to no one. Failures to agree on an alternative measure have political bases ranging from unwillingness to admit that the war on poverty has not experienced all of the successes hoped for to desires to demonstrate it has been even less effective than claimed, that poverty is not a serious problem anyway, or that its continuance is inevitable. Sensible public policy requires an updated measure. The need has not gone unnoticed. Demands and suggestions for that new measure are accelerating. Joint Economic Committee hearings focused on Patricia Ruggles' 1990 book, *Drawing the Line: Alternative Policy Measures and Their Implications for Public Policy*.[6] That led to the appointment of a National Research Council Panel on Poverty and Family Assistance, followed after two years' study by publication of the Panel's 1995 report, *Measuring Poverty: A New Approach*.[7] Examining the poverty threshold in light of changes in consumption, work patterns, taxes, and government benefits, the panel identified most of the shortcomings already cited. It criticized the current approach for:

- Excluding in-kind benefits when counting family income
- Ignoring the costs of earning income when calculating the net income available to families with working members
- Disregarding regional variations in the cost of living
- Ignoring direct tax payments as deductions from family income
- Disregarding differences in health insurance coverage in determining medical care consumption costs and consequent disposable income
- Failing to update the poverty threshold to account for the changing consumption patterns of U.S. households.

Only the latter point was related to the appropriate level of the poverty threshold. The panel came up with the concept of an alternative index using a combination of food, shelter and clothing costs as the base and then applying a small multiplier to those costs to represent all other essentials, using a 1989-91 Consumer Expenditure Survey of the BLS as the source of those costs. The result would have been a reduction in the poverty threshold in comparison to the official measure based on 1964 consumption patterns priced in 1992 dollars. However, of greater concern to the panel was determination of household income for comparison to the threshold to determine who was poor. The suggested index added to family incomes the value of food stamps, school lunches and subsidized or public housing and subtracted out-of-pocket medical expenses, federal and state income and payroll taxes, child care costs and other work-related expenses. The result would have been to remove some from the poverty rolls and add others with the net result shown in Table 1.3.[8]

Table 1.3.
Alternative Poverty Rates Applied to 1992 Data

	Official Index	Alternative Index*	Percentage Point Change
Age			
Children Under 18	21.9	26.4	4.5
Adults 65 and Over	12.9	14.6	1.7
Race/Ethnicity			
White	11.6	15.3	3.7
Black	33.2	35.6	2.4
Hispanic (any race)	29.4	41.0	11.6
Illustrative Contrasts			
Receiving Cash Benefits**	59.4	53.4	-6.0
One or More Workers	9.1	13.7	4.6
No Health Insurance	32.0	44.9	12.9
Total	14.5%	18.1%	3.6%

*Alternative measure updates consumption requirements, includes cash value of near-cash benefits and subtracts medical and work-related expenses.
**Poverty rate of recipients of AFDC or SSI (i.e. means-tested benefits) reduced in contrast to child care and health insurance costs of working single parents.
Source: Constance F. Citro and Robert T. Michael, eds., *Measuring Poverty: a New Approach* (Washington, D.C.: National Academy Press,1995), p. 265.

The relatively modest impact of those changes resulted from the fact that the changed criteria were applied only to 1992 data and changed

only the 1992 poverty threshold and poverty rates. The impact would be larger if the analysis were continued into subsequent years. The panel also advocated varying the poverty threshold geographically to take into account local variations in housing costs. Applying the cost of living adjustments to the 1992 poverty threshold would have reduced the poverty threshold in rural areas by around 15 percent and raised it in some large metropolitan areas by as much as 20 percent. Such changes in the measures of household income are essential if we are to know who is poor and who is not. The challenge not adequately explored by the NRC panel was the need to reconsider the standard of living which is to comprise the official poverty threshold. The panel's response was merely to accept as appropriate the consumption patterns of low income households in 1989-91 without responding to the demonstrated decline in poverty standards.

Publication of the panel's findings and growing recognition of the consequences of relying upon an outmoded standard to make important public policy decisions has generated a growing body of academic and practitioner comment. Notable have been the dedication of the entire Spring 1998 issue of *Focus*, the University of Wisconsin's Institute for Research on Poverty's journal, to "Revising the Poverty Measure," accompanied by a major analytical article in the March 1998 *Monthly Labor Review* and others in the Winter 1998 *Journal of Economic Perspectives*.[9] Sensible public policy demands an updated poverty measure. The key questions are what makes social policy sense and what can become politically acceptable. We review the known alternatives in the following chapter before presenting our own recommendations.

Chapter 2

Alternative Poverty Measures

Our criticisms of the current poverty measures impose upon us the obligation to come up with a viable alternative. In this chapter, we explore various alternatives often advocated by other poverty analysts before coming up with our recommendations.

Updated Food Consumption Approach

A food consumption cost equal to one third of the average family's budget was a reality in the early 1960s setting in which the current poverty threshold was devised. That is no longer the case. With other living costs rising relatively faster than food costs and the composition of the budget changing over time, the food component of the average budget when measured in 1988 was more like 25 percent. That being the case, the multiplier of the food budget to reach a realistic low income cost of living would be four rather than three. Adjusting the 1988 poverty threshold by that multiplier and then bringing it forward to date would result in a poverty threshold 145 percent of the current one. Doing so would make the current poverty level more realistic. However, it would not protect against proportionate expenditures on food or any other single cost of living item changing radically in any direction in the future.

The U.S. Bureau of Labor Statistics' Family Budget Series

During the 1970s and early 1980s, the U.S. Bureau of Labor Statistics produced annual estimates of the amount of pre-tax money income needed by an urban family of four and a retired couple to

achieve three different standards of living: a lower living standard, an intermediate living standard, and a higher living standard.[10] These BLS family budget standards included estimates of the costs of food, housing, transportation, clothing, personal care, medical care, other consumption items, and the federal, state, and local tax burden (including income, payroll, and property taxes) for families in each of the survey areas across each of the three budget standards. Estimates of the levels of pre-tax incomes needed by urban families to achieve each of the three budget standards were produced for the nation's urban areas as a whole, for metropolitan areas, and for 25 individual metropolitan areas.

Unfortunately, the U.S. Bureau of Labor Statistics discontinued the family budget series after the release of the 1981 data, citing a need to update the components of the family budgets and a lack of funds from the U.S. Congress to pursue such a substantial revision.[11] The U.S. Department of Labor's Employment and Training Administration has updated the BLS family budget data on an annual basis for use in determining eligibility for a number of employment and training programs administered by the U.S. Department of Labor, including JTPA training programs for economically disadvantaged youth and adults. These annual updates have simply involved multiplying the values of the lower living standard incomes levels for each area by changes in the rate of inflation as measured by area changes in the Consumer Price Index for All Urban Consumers (CPI-U).[12] Hence, after providing relevant data to 1981, this series now shares one of the basic limitations of the current poverty threshold approach. If still being currently measured as it was in its heyday, the family budget series would offer a constantly updated compromise between the absolute and the relative income measures of poverty levels. The content of the consumption basket would constantly change in keeping with consumer trends, even though there would be no necessary fixed relationship to median family or household income standards.

We have provided an update of the BLS lower living standard income levels for an urban family of four through 1997. Findings of our analysis for 1997 are displayed in Table 2.1. At the time of the 1981 budget survey, the lower living standard income level for a family of four throughout the entire urban United States was estimated to be $15,323. Over the 1981 to 1997 period, the Bureau of Labor Statistics

has estimated that the Consumer Price Index for All Urban Consumers rose by approximately 77 percent. Applying this rate of change in inflation to the 1981 lower living standard income level yields a value for the lower living standard budget in 1997 equal to $27,055. During 1997, the average weighted poverty line for a four person family in the U.S. was equal to approximately $16,400. A comparison of the 1997 lower living standard income level with the poverty line for a four person family yields a relative ratio of 165.0, implying that the lower living standard income budget would have required 65 percent more money income than the poverty line for a four person family during that year. This multiple of 165 percent of the poverty line will be used as one of our measures of income adequacy standards for the country and as a barometer of the adequacy of the weekly earnings obtained by employed terminees from selected JTPA training programs for adults in recent years.

Table 2.1:
Updating the BLS Lower Living Standard Income Level for
An Urban Family of Four to 1997

Variable	Value
Lower Living Standard Income Level, 1981	$15,323
Percent Change in CPI-U Index, 1981-97	76.5%
Lower Living Standard Income Level, 1997	$27,055
Poverty Line for a Four Person Family, 1997	$16,400
Ratio of LLSIL to Poverty Line	165.0

Sources: (i) U.S. Bureau of Labor Statistics, 1982;
(ii) *Monthly Labor Review*, 1985, 1998.

Shelter Poverty: A Cost of Housing Based Poverty Line

Another set of criticisms directed at the official poverty lines of the federal government has been focused on the need for the poverty income thresholds to change over time to reflect the changing share of consumption expenditures accounted for by housing expenditures, particularly at the bottom end of the household income distribution. Patricia Ruggles has developed a housing consumption poverty standard based on the Fair Market Rents used by the U.S. Department of Housing and Urban Development in administering the Section 8 rental subsidy program.[13] She has used the values of these fair market rents for specified two bedroom units to construct a housing-based poverty budget for a four person family. The methodology relies on the annu-

alized rent for a two bedroom apartment meeting specified quality characteristics to estimate the family poverty budget. Ruggles multiplied the rental budget by a factor of 3.33 to reflect the fact that expenditures on rental housing were not expected by HUD to exceed 30 percent of the family's income. Use of this methodology led to an estimated poverty budget of $13,977 for a four person family in 1987. This poverty budget exceeded the official poverty line for a four person family during that year by 54 percent.

We have updated the housing consumption based poverty budget for a four person family through 1997. In the past few years, the U.S. Congress has modified the formula used by HUD to determine fair market rents under the Section 8 rental housing subsidy program. The market rent at the 40th percentile of the rental distribution is now used to represent the maximum rent allowable under the program, rather than the rent at the 45th percentile. During the fall of 1997, the average fair market rent for a two bedroom apartment in the U.S. was $582 per month.[14] Annualizing this monthly rent and multiplying it by a factor of 3.33 to convert it to a family poverty budget for a four person family yields a poverty budget of $23,256, which exceeded the official poverty line for a four person family by 41 percent (Table 2.2).

Table 2.2:
Estimated Poverty Line for a Four Person Family
in the U.S. in 1997 Using the HUD Fair Market Rent Methodology

National Average Monthly Fair Market Rent For a Two Bedroom Apartment	=	$582	
	x	12 Months	
		$6984	Annualized Fair Market Rent
	x	3.33	Consumption Multiplier
		$23,256	
Official Weighted Average Poverty Line for a Four Person Family in 1997	=	$16,450	
Ratio of HUD Housing Based Poverty Line/OMB Poverty Line	=	1.41*	

The monthly values of these fair market rents varied considerably across local housing markets during 1997, ranging from a high of $1,070 in Stamford, Connecticut and Nassau County, New York to a

low of $357 in Gadsden, Alabama (Table 2.3). The existence of such highly divergent rents across local areas clearly calls for the use of local cost-of-living adjusted poverty lines in estimating the size of the poverty population of states and local areas, a topic to which we will return in the following chapter of this report.

Table 2.3:
Fair Market Rents for Two Bedroom Apartments in the Top Five and Bottom Five Housing Cost Areas, 1997: U.S.

	Monthly Rent
Top Five	
Stamford,Ct.	$1,070
Nassau County, N.Y.	$1,070
Westchester, N.Y.	$1,038
San Francisco, Ca.	$987
San Jose, Ca.	$987
Bottom Five	
Dothan, Ala.	$386
Hattiesburg, Ms.	$386
Joplin, Mo.	$382
Anniston, Ala.	$374
Gadsden, Ala.	$357

Source: The Federal Register, August 1997.

Consumption Poverty

Though of necessity calculated in dollars of income, the real measure of poverty is the consumption that income allows the members of a household to enjoy. The 1964 Social Security Administration index which is the base for the current official poverty threshold sought to measure the consumption potential of a poverty income by starting with an observed, though outdated, food budget as requiring one-third of a household's income and assuming all other forms of consumption to require the other two-thirds of a family's income. The BLS Family Budget Series was a measure of the costs of an extensive consumption package with tax burdens added. The National Research Council grouped consumption expenditures into the three categories of food, shelter and clothing as identified by the BLS Consumer Expenditure Survey. Dale Jorgenson and Daniel Slesnick sought to carry the sophistication of the consumption approach further with five categories:

energy, food, other consumer goods, housing and capital services and other services. For them, the average value of the combined consumption of these five categories represents the poverty threshold. The Consumer Expenditure Survey and the U.S. National Income and Product Accounts are used as data sources to estimate changes in consumption levels of households over time.[15] These authors calculate equivalence scales to determine the amount of consumption needed by households of different sizes and types to avoid poverty. Their classification scheme involves separate scales by family size, race, age of household head, and urban/rural and region of residence. They estimated changes in consumption expenditures needed by each household type to obtain an equivalent standard of living over time. The authors are convinced that the CPI adjustments that underlie the official poverty estimates are exaggerated and use a reduced rate for their time extensions.

Jorgenson and Slesnick calculated estimates of consumption-based poverty rates for persons in the United States based on this methodology through 1989. Their findings indicate that poverty rates in the United States fell from 1973 through the late 1970s, rose sharply in the early 1980s, and then declined to 8.4% in 1989. Their findings of a downward trend in poverty rates between 1973 and 1989 stand in sharp contrast to the findings of the U.S. Census Bureau. For example, the Jorgenson/Slesnick method yielded a 1973 poverty rate of 9.7%, 1.4 percentage points below the poverty rate reported by the Census Bureau. However, by 1989, the Jorgenson/Slesnick 8.4% poverty rate was more than 4.4 percentage points below the Census Bureau rate of 12.8%. Jorgenson perceives these lower poverty rates as evidence that the federal government's antipoverty programs have been successful, though no causal relationships are identified.

However, a number of these authors' assumptions raise doubts concerning the sophistication of their methodology. Their findings are highly sensitive to the equivalence scales which they derive to explain the consumption needs of families of various sizes, types and locations. For example, a family of four headed by a 35-44 year-old person is presumed to need 56% more consumption than a similar sized household headed by a 25-34 year old. Families in the South are alleged to require 15% more consumption than a family in the North and 50% more con-

sumption than a family in the Pacific region. A rural family is estimated to need 94% more consumption than an urban family in order to avoid poverty. The consequences of using these assumed equivalence scales to estimate the differences in consumption expenditures required to avoid poverty can be illustrated by considering two four-person families. Imagine one being white, living in the rural South and headed by a 45-54 year old male. The other is non-white, lives in urban California with a 25-34 year old family head. According to the Jorgenson/Slesnick methodology, the first family needs five times the consumption expenditure of the second family in order to avoid poverty. These findings are simply not believable, pointing in exactly the opposite direction of perceived reality.

These authors' estimates of declining poverty rates over the past two decades result from these equivalence scales. Since increasing numbers of poor families are headed by younger single parents in urban areas, they assume that such families require much less consumption than suggested by the existing poverty thresholds. As a consequence, poverty rates are unrealistically low using their methodology, despite the advantages that methodology could offer if more realistic household equivalence scales were derived.

Public Perceptions of Appropriate Minimum Income Adequacy Standards

Over the past two decades, a number of national and local public opinion surveys have been used to identify the public's views with respect to the amounts of income needed to avoid poverty or to achieve a desired minimum standard of living. These surveys reveal that the American public has a conceptual average poverty standard that is well above the federal government's poverty thresholds. Thus, use of these more subjective poverty thresholds would yield higher estimates of the number of poor persons and families in the U.S.

Between July and October of 1989, a national Gallup Poll was conducted in which respondents were asked to identify "what amount of weekly income would you use as a poverty line for a family of four in this community."[16] The mean annualized value of the responses to this question was $15,017, or 24 percent above the federal government's

poverty threshold for a family of four. Responses did, however, vary by region and by metropolitan/non-metropolitan area. Households in the Northeast region provided a mean response that was 128 percent of the poverty line, and those residing in metropolitan areas of the Northeast cited a mean income 130 percent above the federal government's poverty line. Use of the "public's poverty line" rather than the official poverty income thresholds increased the incidence of poverty among persons from 13 percent to 18 percent and among children from 19 to 26 percent.[17]

The survey questionnaire used in conducting the Boston Low Income Neighborhood Survey of 1987- 88 was designed in part to capture information on respondents' estimates of the annual amount of income that a household of their size in the city of Boston would "need at a minimum to avoid being poor."[18] During the interview, survey respondents were asked to identify that income category (an income range) which most closely resembled the minimum amount of income needed by a family of their size to avoid poverty.

Similar to the national findings cited above, the median estimates of the minimum income needed to avoid poverty were well above the official poverty thresholds for each family size. For families of two, the median estimate of the minimum income needed was nearly $28,000. The median estimates increased with family size, ranging from $34,259 for a family of four up to $39,000 for families containing seven or more members.

On average, the estimates of the "minimum family income" needed to avoid poverty in the city of Boston were 2.9 times as high as the official poverty line. Poor families' estimates of this minimum income were on average only 2.3 times as high as the official poverty line while the non-poor cited estimates that were 3.2 times as high as the existing poverty thresholds of the federal government. As the authors noted in a research report on these findings to the Massachusetts Executive Office of Economic Affairs, "the federal government's income guidelines for determining the poverty status of city of Boston families seem to be a world apart from the perceptions of the adult residents of these low income neighborhoods."[19]

A variety of public opinion polls and household surveys also have been used over the past two decades to ascertain the public's views on the appropriate size of other income adequacy thresholds. For example, a number of national Gallup polls have asked respondents to identify the "smallest amount of money a family of four (husband, wife, two children) needs each week to get along in this community." Findings of a January 1975 Gallup poll on responses to this question indicated that the average weekly amount of income believed to be needed by a family of four "to get along" was $161. On an annualized basis, this was equal to an income of $8,372, a figures two-thirds higher than the official poverty line for a nonfarm family of four during calendar year 1974.[20]

Gallup polls during the time period 1978 to 1992 also asked respondents similar questions on the amount of income that would be needed by a family of four to get along in their community. Responses to the surveys for selected years from 1978 to 1992 are displayed in Table 2.4. The estimates for each year on the amount of income needed by a family of four to "get along" are compared with the official poverty lines for a family of four in each year. The findings for each year have been converted into constant 1992 dollars. Comparisons of the dollar amounts of income needed "to get along" with the official poverty lines for a family of four reveal that the amount of income needed substantially exceeded the official poverty line during each of these years. These ratios ranged from of a low of 156 in 1980 to a high of 176 in 1992. The median ratio over this 15 year period was equal to 170% of the official poverty line for a four person family. A review of the findings in Table 2.4 also reveals that the dollar amounts of income needed to get along tended to increase as the median level of the real income of families in the United States rose. For example, in 1982, a recessionary year, the median dollar amount of income needed to get along was somewhat under $23,000; however, by 1992, the median dollar amount needed to get by had risen to $25,000, an increase of nearly $2,100 or 10%. This finding suggests that the amount of income needed by families to achieve income adequacy standards also tends to be a function of the overall level of affluence in the economy.

Table 2.4:
Comparisons of the Public's Perceptions of the Dollar Amounts of Income Needed by A Family of Four to "Get Along" with the Official Poverty Thresholds for a Four Person Family, Selected Years 1978 to 1992
(in Constant 1992 Dollars)

Year	(A) Amount of Income Needed to Get Along	(B) Official Poverty Line	(C) Ratio of A to B (in %)
1978	$24,505	$14,230	172.2
1979	24,520	14,230	172.3
1980	22,135	14,230	155.6
1981	24,400	14,230	171.5
1982	22,983	14,230	161.5
1983	23,073	14,230	162.2
1984	23,452	14,230	164.8
1985	23,663	14,230	166.3
1986	24,230	14,230	170.3
1989	24.653	14,230	173.3
1992	25,028	14,230	175.9

Source: Constance F. Citro and Robert T. Michael, *Measuring Poverty: A New Approach*, pp. 138-139.

Several other national surveys have been used to generate estimates of the "minimum incomes" needed by households to achieve economic self-sufficiency. Sheldon Danziger and several of his colleagues analyzed data from the 1979 Income Survey Development Program (ISDP) Research Panel in which respondents were asked to cite the "very smallest income" their families needed to "make ends meet."[21] The mean response for families of four was $15,000 or twice the poverty line for that year. DeVos and Gardner utilized findings from the 1982 Consumer Expenditures Survey on a similar question regarding the minimum income needed to "make ends meet." The mean response from families of four was $20,700, an income level that was again twice the official poverty level for a family of that size. National Roper polls during the late 1980s and 1990s included questions asking respondents to cite the amount of income they would need to "just get by in their community". Estimates of these annual amounts of income needed "to get by" are displayed for the years 1989, 1990, and 1994 in Table 2.5. The dollar amounts of income in this table are expressed in current dollars rather than in constant dollars. The estimates of the amount of income needed to get by are compared with the poverty line for a fam-

ily of three since the median-sized family in the U.S. during these years would have been a family containing three persons. When we compare the median estimates of the amount of income needed by a family "to get by" with the poverty line for a three person family in each year, we find that the estimated amount of income needed to get by exceeded the poverty line for a three person family by a multiple of two or more in each of these three years. The findings of the Roper Polls and Gallup Polls, thus, clearly indicate that the minimum income adequacy standards of the American public are substantially in excess of the official poverty lines of the federal government.

Table 2.5:
Comparisons of the Annual Amount of Income Needed by A Family to "Just Get By" with the Poverty Line for A Family of Three in the U.S.: 1989, 1990, 1994

Year	(A) Median Estimate of Income Needed to Get By	(B) Poverty Line for Three Person Family	(C) Ratio of A to B
1989	20,000	9,885	2.01
1990	22,100	10,419	2.12
1994	25,000	11,821	2.11

Sources: i) Roper polls
ii) *The American Enterprise*, Nov. 10, 1994
iii) U.S. Census Bureau, selected Current Population Reports, Series P-60 publications on poverty problems of U.S. residents.

The National Research Council Approach

As noted earlier, motivated by swelling criticisms of the outdated poverty measure, the National Research Council of the National Academy of Sciences assembled in the early 1990s a Panel on Poverty and Family Assistance consisting of recognized scholars in the field. Reporting in 1995, the Panel recommended a new poverty threshold based on actual expenditures by low income households five years earlier.[22] Rather than starting with food costs and applying a large multiplier, the Panel chose a "basic needs commodity bundle" of food, clothing and shelter expanded by a small multiplier to represent additional needs such as household supplies, personal care and non-work-related transportation. What was included among the additional needs would

determine the size of the multiplier. Rather than a 1955 "economy food plan" priced in 1990s terms, the panel relied on data from the 1989-91 Consumer Expenditure Interview Survey, advocating that the survey be conducted every year and an average of the most recent three years be used as the household consumption base with poverty being designated as something less than the median level of consumption of basic needs items. Reflecting what we have called the supply-side concern, the Panel then proposed comparing to that poverty threshold a family's economic resources consisting of money income from all sources plus near-money benefits from transfer programs such as food stamps and housing subsidies minus out-of-pocket costs of earning income, such as child care, medical care and transportation to work, as well as payroll and income taxes, in order to determine whether the family is in poverty. The Panel recommended changes in the consumption weights assigned to various ages within a two-parent two-child family, compared to the weights applied in 1964. They also advocated using housing costs as a measure for differentiating the poverty threshold geographically.

The Panel tested its approach by applying it to 1992 statistics but was not specific in its policy recommendations. However, a team from the U.S. Bureau of Labor Statistics and the Bureau of Census subsequently applied the technique to 1990-95 data, making a number of calculations more relevant to current discussion.[23] What we will call the MLR group derived what they called a basic bundle consisting of food, clothing, shelter and utilities plus transportation and personal care and a second bundle including the same as the first but with expenditures for education and reading added. These resulted in a multiplier of the basic food, clothing and shelter budget of 1.15 and 1.25. Of course, families with different incomes spend differing amounts on the basics. Expenditures measured by the Consumer Expenditure Interview Survey were arrayed in ventiles (5 percentage point intervals) and the 30th to the 35th percentiles were chosen to represent poverty, that being approximately four-fifths of the median consumer expenditures identified by the survey. Applying that formula, the relationship between the official poverty threshold and the NRC approach would be as shown in Tables 2.6 and 2.7:

Table 2.6
Poverty Thresholds For Selected Family Types, 1995

Family Type	Official Threshold	Bundle 1	% difference*	Bundle 2	% difference*
Singles	$7,763	$6,843	88	$7,382	95
Married couple	9,933	11,117	112	11,993	121
plus one child	12,267	13,715	112	14,796	121
two children	15,455	16,117	104	17,387	113
three children	18,187	18,374	101	19,822	109
four children	20,364	20,517	101	22,134	109
five children	22,809	22,569	99	24,347	107

*Bundle as percent of Official Threshold

Table 2.7
Percentage Poverty Rates of Persons by Selected Characteristics, 1995

Characteristic	Official Threshold	Bundle 1	Bundle 2
Age			
All ages	13.8	18.4	21.1
Children (under 18)	20.8	24.3	27.7
18-64 years	11.4	15.4	17.7
Over 64 years	10.5	20.9	24.2
Race and Ethnicity			
White	11.2	16.3	18.7
Black	29.3	30.8	35.3
Hispanic origin	30.3	41.0	45.8
Work Experience			
Worker in family	9.5	13.9	16.5
Family Type			
Married couple	6.8	12.4	14.7
Female householder	35.5	38.8	42.9

The relatively moderate increase in the poverty thresholds represented by this approach is not difficult to explain. In 1964, the poverty threshold as constructed based on a 1955 minimum diet multiplied by 3 was approximately one-half of the post-tax median family income for a four person family. By 1995, that same poverty threshold advanced only by the rate of inflation was slightly more than one-third (35%) of the post-tax median family income. The National Research Council approach was applied to a 1989-91 survey of actual consumer expenditures and the MLR group extended that same measure annually through 1995. In effect, this was a more sophisticated version of the cost of living approach cited above, but using the current Consumer Expenditure

Survey rather than the BLS Lower Living Standard Index of the early 1980s. For this purpose, the MLR panel chose to go beyond reliance on a median measure. The actual standards of living of low income people have been so reduced that even elevating the poverty threshold to approximate the actual living standards of those at two-thirds of the median expenditure raised the 1995 poverty threshold for a two-parent, two-child family by only 104 percent or 113 percent, depending upon the consumption bundle and consequent multiplier chosen. Even at that, the poverty rate would have increased by one-third to one-half, increasing the number of poor by similar amounts.

The Relative Income Approach

Poverty measures can be based on either an absolute income or a relative income approach. The existing poverty literature often makes references to these two alternative approaches to the measurement of poverty in any given country.[24] The official poverty measures currently used in the United States reflect the absolute income approach to poverty, i.e., the existing poverty income thresholds for families are based on an absolute amount of money income that is believed to be needed by a family of a given size and age composition to achieve a minimally adequate level of consumption of goods and services. In contrast to this absolute approach, the relative income approach is based on the notion that the amount of expenditures or income needed by a family to avoid deprivation should be related to the average amount of consumption or income obtained by other families in their local communities or the nation. This relative income approach, thus, is based on a relative definition of deprivation.

Peter Townsend, a British social scientist, made the case for a relative income approach to poverty in the following manner: "Poverty is a dynamic, not a static concept. Man is not a Robinson Crusoe living on a desert island. He is a social animal entangled in a web of relationships at work and family and community which exert complex and changing pressures to which he must respond, as much in his consumption of goods and services as in any other aspect of this behavior.... Our general theory, then, should be that individuals and families whose resources over time fall seriously short of the resources commanded by the average individual or family in the community in which they live,

whether that community is a local, national and international one, are in poverty."[25]

Victor Fuchs, a U.S. economist, also made the case for using a relative income measure of poverty in the late 1960s.[26] Fuchs recommended that a reasonable basis for a relative measure of poverty would be an income less than 50 percent of the median income of all families in society. During 1996, the median income of families in the United States was equal to $42,220. Using Fuchs' definition of poverty, any family with an income less than $21,110 would be considered poor. While the Fuchs' definition has a number of conceptual advantages and has been widely used in empirical studies of relative poverty, one must also take into consideration the appropriate basis of comparison in determining whether a given family is poor. For example, one would expect that the relative income measure should adjust for family size and age composition at a minimum. Several international studies of income inequality and poverty have used 50 percent of the median adjusted income of families in given sizes and age distributions as a measure of poverty. For example, Timothy Smeeding has utilized 50 percent of median adjusted family income as a measure of poverty in his studies of economic inequality in ten nations in North America and Western Europe.[27]

According to findings of the National Research Council's Panel on Poverty and Family Assistance, the 1963 poverty line for a four person family in the U.S. was equal to 43.5 percent of pre-tax median family income and 50 percent of the post-tax median family income for a four person family.[28] Table 2.8 updates these estimates by utilizing March 1997 CPS data to produce estimates of median family incomes for U.S. families and comparing them to the official poverty thresholds for families of similar size in 1996.

Table 2.8:
Comparisons of the 1996 Median Family Incomes and Weighted Average Poverty Income Thresholds for Families Containing 2 to 7 Persons, U.S.

Family Size	(A) Median Income	(B) Poverty Threshold	(C) Poverty Threshold as % of Median Income
2	$35,936	$10,233	.284
3	44,029	12,516	.284
4	51,242	16,036	.313
5	48,100	18,952	.394
6	41,700	21,389	.513
7 or more	40,000	24,268	.607

Source: March 1997 CPS survey, public use tape, tabulations by Center for Labor Market Studies, Northeastern University.

When the existing poverty thresholds for families are compared to the median incomes of the nation's families, we find that the poverty thresholds in 1996 for families containing two to four persons were equal to only 28 percent to 31 percent of median pre-tax family incomes. For a family of four, this 31 percent ratio falls considerably short of the 43.5 percent ratio prevailing in 1963. Hence, the existing poverty lines fall considerably short of their relative income position in the early 1960s when poverty began to be officially measured by the federal government. Families containing two to four persons represented more than 86 percent of all families in the nation, while only 14 percent of all families contained five or more persons, and families containing seven or more individuals represented less than 2 percent of all family households in the U.S. in March 1997 (Table 2.9). The 43.5 percent of median pre-tax incomes and 50 percent of median post-tax family incomes is therefore the most useful comparison to that long-ago norm.

Table 2.9:
Distribution of Family Households, by Number of Persons in Family, U.S., March 1997

Family Size (Number of Persons in Family)	Number of Families	Percent of Total
All Families	70,240,718	100.0%
2	29,779,732	42.4%
3	16,239,402	23.1%
4	14,601,561	20.8%
5	6,325,991	9.0%
6	2,108,412	3.0%
7 or More	1,185,620	1.7%

Source: March 1997, CPS public use tapes, tabulations by Center for Labor Market Studies.

In Table 2.10, we have generated estimates of the poverty lines that would exist if a relative definition of poverty were used according to which 50 percent of the pre-tax median income of all families in a given family size were used as the criterion. The new poverty lines for families would have ranged from nearly $18,000 for a family of two to a high of $25,600 for a family of four before diminishing to as low as $20,000 for families containing seven or more individuals. When we compare the size of these relative poverty lines with the existing poverty lines under the absolute income definition, we find that a relative definition of poverty would imply a 76 percent higher poverty line for families containing two to three persons, a 60 percent higher poverty line for families containing four persons, and a 27 percent higher poverty line for families containing five individuals. For families with six or more persons, the relative poverty line would actually be somewhat less than the existing absolute poverty line; however, such families represent only a small fraction of all families in the U.S. at the present time.

Table 2.10:
Calculating a New Set of Poverty Income Thresholds for Families Based on A Relative Income Definition, 1996

Family Size	(A) New Poverty Line	(B) Old Poverty Line	(C) New as Percent of Old
2	17,968	10,233	175.5
3	22,015	12,516	175.8
4	25,627	16,036	159.8
5	24,050	18,952	126.9
6	20,850	21,389	97.4
7	20,000	24,268	82.4

We have combined the findings in Table 2.10 for families of given sizes to calculate a weighted average ratio of the relative poverty lines to current poverty lines for families in the U.S (Table 2.11). These calculations simply rely on the ratios of the new relative poverty line to the current absolute poverty line for families of a given size and their proportionate share of all families in the country. The overall results indicate that the use of a relative poverty line based on 50 percent of the median pre-tax income for families in each given size class would require a poverty line that was 65 percent higher, on average, than the current poverty lines used by the federal government. Thus, it is quite clear that use of relative poverty measures would require a substantial increase in the values of the existing poverty lines for families in the U.S. This 165 percent poverty multiple, which is also supported by past relationships to the Lower Living Standard index, will be used in subsequent analyses as a new measure of poverty in determining how many families and individuals were poor in the United States in the mid to late 1990s.

Table 2.11:
Calculating a Weighted Average Ratio of the Relative Poverty Lines to the Current Absolute Poverty Lines

Family Size	(A) Ratio of Relative to Absolute Poverty Line	(B) Weight	(C) Col. A * Col. B
2	175.5	.424	74.4
3	175.8	.231	40.6
4	159.8	.208	33.2
5	126.9	.090	11.4
6	112.4*	.030	3.7
7	99.1*	.017	1.7
Sum		1.000	165.0

Note: *Families containing six or more persons were assigned the same relative poverty line as families containing five persons.

Interstate Cost of Living Differences

In the early years of the national anti-poverty effort, poverty thresholds were established separately for urban and rural areas in recognition of the fact that rural people were likely to be able to produce some of their own foodstuffs as well as having access to lower cost housing. That differentiation was subsequently dropped. Still, the point is often made that living costs differ substantially, not only on a rural and urban basis, but regionally across the nation. As a practical matter, housing costs are probably the only living cost item which vary with sufficient magnitude and stability to justify using them as the basis for a geographically differentiated poverty threshold. For instance, using the 1981 BLS family budget survey for 24 metropolitan areas across the country, average absolute deviations from mean values expressed in index terms (base equals 100) ranged from a low of 4 percent for food and transportation to a high of 18 percent for rental housing.

Numerous studies of the cost of living in various metropolitan areas across the nation over the past decade have revealed fairly substantial differences in the costs of living, with housing cost differences accounting for the bulk of the estimated differentials.[29] Failure to adjust poverty income thresholds for local cost of living differences, thus, distorts estimates of state and local poverty rates and leads to a misallocation of

scarce federal dollars for antipoverty efforts. That was one of the key issues leading Congress to request the study by the Committee on National Statistics of the National Research Council already cited.[30]

In the final report on its study of poverty concepts and measures, the Panel on Poverty and Family Assistance developed a series of recommendations to refine and modify the nation's existing poverty concepts and measures. Among those recommendations was one that called for incorporating local cost-of-living adjustment factors based on the costs of securing rental shelter into future poverty income thresholds. In its Recommendation 3.2, the Panel argued that:

"The poverty thresholds should be adjusted for differences in the cost of housing across geographic areas of the country. Available data from the decennial census permit the development of a reasonable cost-of-housing index for nine regions and, within each region, for several population size categories of metropolitan areas. The index should be applied to the housing portion of the poverty threshold".[31]

The nine geographic regions and the five population classes of metropolitan areas are depicted in Table 2.12. These nine geographic regions correspond to the existing geographic divisions of the U.S. Census Bureau. The five population size classes for metropolitan areas range from under 250,000 to 2,500,000 or more. A separate set of estimates were made for non-metropolitan areas in each region.

Table 2.12:
The Nine Geographic Regions and Population Size Classes for Metropolitan Areas Within Regions

Geographic Regions	Metropolitan Area Population Size Classes
New England	Under 250,000
Middle Atlantic	250,000 -500,000
East North Central	500,000 - 1,000,000
West North Central	1,000,000 -2,500,000
South Atlantic	2,500,000+
East South Central	
West South Central	
Mountain	
Pacific	

In their analysis of local cost of living differences, the Panel focused on geographic variations in the costs encountered by families in securing rental shelter. Using findings from the 1990 Census of Population and Housing, the authors of the study generated data on the distribution of monthly rents as reported by households in the 1990 Census for a specific type of rental unit in each of 341 metropolitan areas of the nation and non-metropolitan areas within each of the states. The rental unit selected for analysis was a "two bedroom apartment that had complete plumbing facilities, kitchen facilities, and electricity and in which the occupant had moved in within the past 5 years."[32] The authors of the study excluded from consideration all households occupying such types of rental units who either paid no cash rent or received meals in addition to their shelter.

Upon obtaining the distribution of rents for the above specified housing units in each geographic area, the market rent at the 45th percentile of the distribution was chosen to represent the cost of rental shelter in each area. The choice of the 45th percentile was in accord with procedures used by HUD in the early 1990s to determine fair market rents in a local area.[33] The rental costs at the 45th percentile in each area were then compared to the average U.S. value, and an index of relative shelter costs was constructed, with a value of 100 for the entire U.S. The index values for rental shelter varied considerably across areas of the country. For each of the nine Census regions, the authors calculated a

rental index value for five population size classes of metropolitan areas and for non-metropolitan areas. The index values ranged from a low of 56.4 for non-metropolitan areas in the East South Central region to a high of 149.2 for metropolitan areas containing 2.5 million or more people in the Pacific region.[34]

To convert these cost-of-housing index values into local cost-of-housing adjusted poverty income thresholds, one must determine the weight of housing expenditures in the consumption bundle that will be used to represent the poverty line. The Panel on Poverty and Family Assistance selected a weight of .44 for the consumption of shelter and utilities by low income families.[35]

By multiplying the cost of housing index for each area by this weight of .44, we can generate estimates of the cost-of-living poverty index for each metropolitan area by population size class and for non-metropolitan areas in each region as of 1990. Values of these cost-of-housing adjusted poverty thresholds were calculated in the following manner, using the Chicago and Boston metropolitan areas as examples. The Chicago metropolitan area was assigned a value of 113.3 on the cost-of-housing index. The 13.3 percentage point higher cost of rental housing in Chicago relative to the nation would be multiplied by .44, yielding a 5.9 percentage point higher poverty index. The poverty index for the Chicago metropolitan area would thus be set at 105.9. Using similar procedures for Boston, we multiplied the 47.5 percent higher cost of rental housing in this metropolitan area by .44 and obtained a 20.9 percentage point higher poverty index for the Boston metro area relative to the nation. The value of the poverty index for the Boston metropolitan area would, thus, be set at 120.9.

Values of the poverty index for seven selected metropolitan areas and non-metropolitan areas throughout the country are displayed in Table 2.13. These seven areas cover the entire range of values for the poverty index from top to bottom. For families living in either non-metropolitan areas or small metropolitan areas (under 250,000 people) in the East South Central region, the adjusted poverty line was set at approximately 83 percent of the existing poverty line. For families living in mid-sized metropolitan areas in the Middle Atlantic region, such as Albany-Schenectady, New York, the adjusted poverty line would be set

about 3 percent above the national poverty line. For families in the Boston metropolitan area, the adjusted poverty line would be set 21 percent higher than the existing poverty threshold. At the upper end of the cost of living distribution would be large metropolitan areas in the Pacific region, such as San Diego and San Francisco/San Jose, California. Families in these areas would be assigned adjusted poverty lines that were nearly 22 percent higher than the national average. The range in these adjusted poverty lines across local areas of the nation was quite substantial, varying from 83 percent to 122 percent of the existing federal government poverty lines.

Table 2.13:
Geographic Variations in the Poverty Line
Adjusted for Regional Differences in Rental Costs
(Numbers in Percent, U.S. = 100)

New Poverty Line As Percent of Old Line	Type of Place; Specific Geographic Area Representative of this Type of Place
82.7	East South Central Region, non-metropolitan areas and metropolitan areas under 250,000 (specific place: Anniston, AL)
89.9	South Atlantic non-metropolitan areas and metropolitan areas under 250,000 population (specific place: Wilmington, NC)
102.8	Middle Atlantic metropolitan areas 500,000 to 1,000,000 population (specific place: Albany-Schenectady-Troy, NY)
105.9	East North Central metropolitan areas 2,500,000 or more population (specific place: Chicago, IL)
114.8	New England metropolitan areas 500,000 to 1,000,000 population (specific place: Springfield, MA)
120.9	New England metropolitan areas 2,500,000 or more population (specific place: Boston, MA)
121.7	Pacific metropolitan areas 2,500,000 or more population (specific place: San Diego and San Jose, CA)

The estimates of the cost of living for local areas across the nation can be used to generate new estimates of the poverty population of states in the mid-1990's. The specific methodology for doing so is described in Appendix A. We believe that these estimates provide much

more accurate depictions of the comparative poverty position of individual states across the country. The cost of housing adjusted poverty lines for metropolitan and non-metropolitan areas also will be used to calculate estimates of cost of living indices for states. The methodology for generating these state cost of living indices is described in Appendix B. The state cost of living indices also will be used to estimate the number of employed JTPA terminees who obtained weekly earnings sufficiently high to enable their families to rise above various income adequacy thresholds in 1996 and 1997. These self-sufficiency standards should serve as important barometers of the ability of future JTPA and Workforce Investment Act (WIA) programs to achieve their core objectives.

The Requisite Poverty Level

The above arguments support a variety of multiples of the current poverty thresholds as Table 2.14 summarizes:

Table 2.14
Alternative Justifications for Increases in the Current Poverty Thresholds

Poverty Line Multiple	Studies
113%	~National Research Council approach based on actual consumption by low income families in 1990-95
124%	~1989 Gallup survey asking respondent's judgement as to income needed to avoid being poor
136%	~Food spending multiplier raised to 4 as prevailed in 1988
142%	~Cost of housing-based poverty threshold based on rents paid on two-bedroom apartments at the 45 percentile and rental expenditures limited to 30 percent of income
165%	~Weighted ratio of one-half of the median pre-tax income of 2-6 person families to poverty threshold
165%	~Ratio of CPU-U adjusted lower living standard budget for urban family of four to poverty threshold
176%	~Responses to 1992 Gallup survey of minimum income needed to "get along"

It is our argument that the U.S. government ought to simply abandon as meaningless its outmoded food-based and CPI-adjusted nationwide poverty threshold. That is, as the kids say, a no-brainer under current

circumstances. The more difficult issue is what should replace it. That is inherently a value judgement. The public opinion approach strikes us as equally dubious. Its results would depend upon whether the respondents accurately visualized how much income they and their families needed to "make ends meet"—for most perceived as always substantially more than current income—or the incomes they as taxpayers would be willing to provide to others. A threshold based on multiples of any single basic category such as food, shelter or clothing would face, as the current threshold does, the constant shifting over time of the relationships to other major categories of living costs. Reliance on frequent or periodic consumer surveys, such as the Consumer Expenditure Survey, would describe current living standards but would leave open the normative question of what they should be. Such surveys can measure what is actually occurring but BLS family budgets must still be based on normative standards. Should the poverty threshold seek a minimum survival level as a floor for those who might without help fall below it? Should society instead set a target for itself beyond that previously achieved for the poor and design programs to pursue it? Or should society decide by consensus upon some preferred relationship between the incomes of the poor and the nonpoor, allowing them to move up and down together.

By historical accident, the poverty threshold established in 1964 was approximately one-half the median post-tax income for a four-person family. Since war was declared on poverty with a threshold at one-half the median post-tax income, we would argue that national honor demands adherence to that target. Let the poverty line rise and fall at the same pace as the average income of their fellow citizens. Restoring the 1964 relationship between the median pre-tax family income and the poverty line would require raising the poverty line to 140% of its current level and having the poverty line reflect 50% of the median post-tax income of all families would require raising it to 165% of the existing poverty threshold. Therefore , we designate hereafter a family income below that 165% level as income inadequacy. The policy and budgetary consequences of raising the poverty threshold to that level is the topic of the remainder of this paper.

Chapter 3

Consequences of an Enhanced Poverty Threshold

Raising the poverty threshold to any multiple of its present level would have a variety of impacts on the estimated size and demographic composition of the population with inadequate incomes. Such inaction would also have a set of programmatic and practical consequences which require exploration. In this chapter, we explore the consequences of raising the poverty threshold to various levels of family income adequacy.

Trends in Poverty and Income Inadequacy Among U.S. Families, 1991 to 1997

The income inadequacy problems of U.S. families and persons during the 1990s were tracked with the annual March CPS household surveys. The March CPS survey contains a supplement that is used to track the employment, income and earnings experiences of all respondents 15 and older during the prior calendar year. All of the annual data on median family incomes, the family income distribution, and the poverty status of families and persons in the U.S. are based on this data set.[36]

Trends in the incidence of income inadequacy problems among U.S. families over the 1991-97 period are displayed in Table 3.1 and accompanying bar chart 3.1.

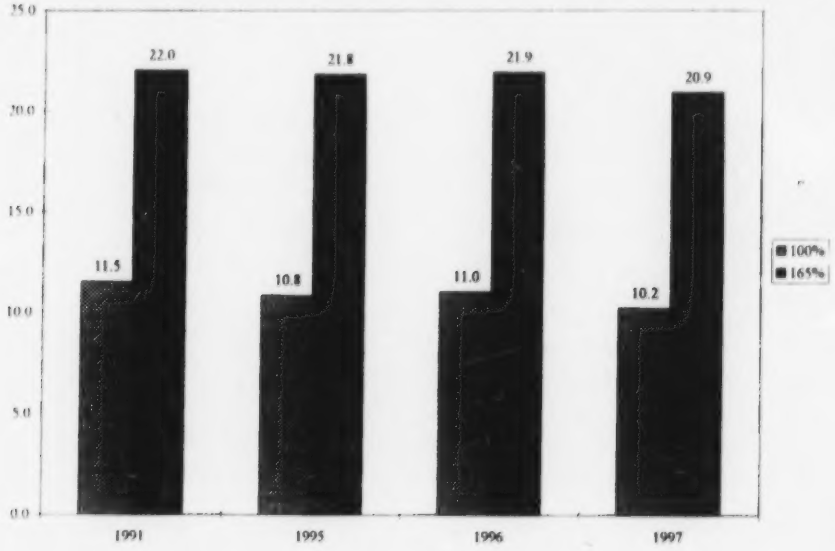
Table 3.1:
Trends in the Percent of U.S. Families with Annual Incomes Below Specified Multiples of the Poverty Line, Selected Years 1991 to 1997

Poverty Line Multiple	(A) 1991	(B) 1995	(C) 1996	(D) 1997	(E) Change 1991-97
1.00	11.5	10.8	11.0	10.3	-1.2
1.50	19.4	19.0	19.1	18.1	-1.3
1.65	22.0	21.8	21.9	20.9	-1.1

Source: March CPS public use tapes, 1992, 1996, 1997 and 1998, tabulations by Center for Labor Market Studies.

Following the recovery from the economic recession of 1990-91, poverty rates of families did not begin to diminish until 1994. By 1997, the poverty rate for all families had declined to 10.3%, representing a third year of decline in the family poverty rate since 1993. Throughout this period, the proportions of those families with incomes below 165% of the poverty have been persistently double the proportions of those with incomes below 100% of the poverty line, neither of those proportions having declined considerably over that period.

Chart 3.1:
Comparisons of the Percent of Families with Incomes Below 100% and 165% of the Poverty Line, Selected Years, 1991 to 1997



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Current Patterns of Poverty

The incidence of income inadequacy problems among U.S. families also tends to vary considerably by the demographic and socioeconomic characteristics and the labor market experiences of the family householder.[37] Table 3.2 displays the incidence of poverty rates among families in selected age, race/ethnic, educational attainment and employment experience subgroups during selected years over the 1991 to 1997 period.

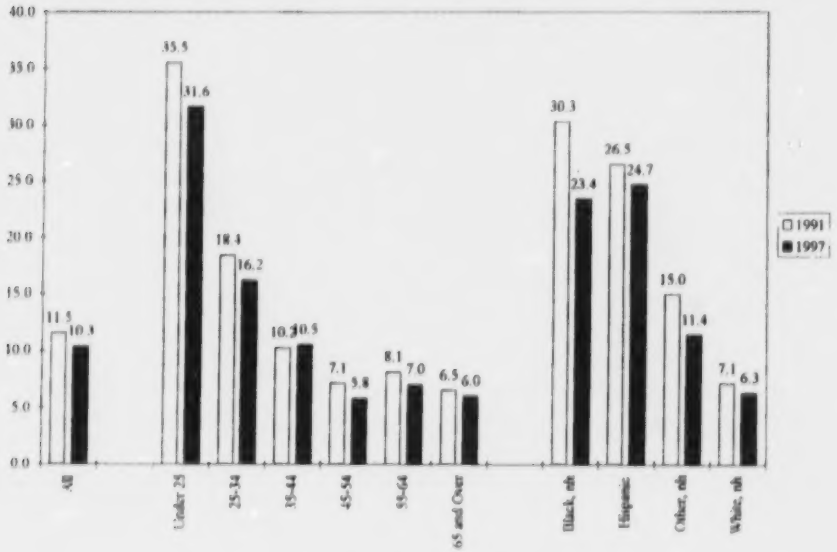
Table 3.2:
The Per Cent of U.S. Families with Incomes Below the Poverty Line by Selected Demographic and Socioeconomic Characteristics of the Family Householder: Selected Years 1991 to 1997

	(A) 1991	(B) 1995	(C) 1996	(D) 1997
All	11.5	10.8	11.0	10.3
Age Group				
<25	35.5	33.7	34.0	31.6
25-34	18.4	16.7	16.7	16.2
35-44	10.2	10.6	10.9	10.5
45-54	7.1	6.8	6.8	5.8
55-64	8.1	7.7	7.7	7.0
65+	6.5	5.5	6.0	6.0
Race/Ethnic Group				
Black, non-Hispanic	30.3	26.2	25.7	23.4
Hispanic	26.5	27.0	26.4	24.7
Other non-Hispanic	15.0	15.1	14.9	11.4
White non-Hispanic	7.1	6.4	6.5	6.3
Educational Attainment				
<12 Years	26.0	26.3	26.4	25.7
12 Years	11.7	10.9	11.3	11.0
13-15 Years	7.1	7.8	8.0	7.2
16+ Years	2.2	2.4	2.4	2.0
Weeks of Work in Prior Year				
Did not work last year	24.5	22.0	22.6	20.0
Worked less than 27 weeks	30.6	30.2	30.1	29.6
Worked 40 or more weeks	4.6	4.7	4.6	4.7

The findings on the incidence of poverty problems reveal substantial variations each year in poverty rates among families classified by the age of the householder. The nation's youngest families, i.e., those with a family head under the age of 25, clearly faced the most severe poverty problems, and the relative incidence of such problems among young

families, especially those with children, has increased substantially over the past two decades, raising the share of the nation's children residing in poor families.[38] During 1991, over a third of the families headed by an individual under the age of 25 were poor versus 18 percent of the families with a head between 25 to 34 years of age and only 6 percent of families headed by an elderly individual 65 or older. In each year, the incidence of family poverty problems tended to decline fairly substantially with age until the age group 55-64 was reached (Chart 3.2). Early labor force withdrawals among older males with no post-secondary schooling has contributed to the rise in poverty problems among older families 55-64.

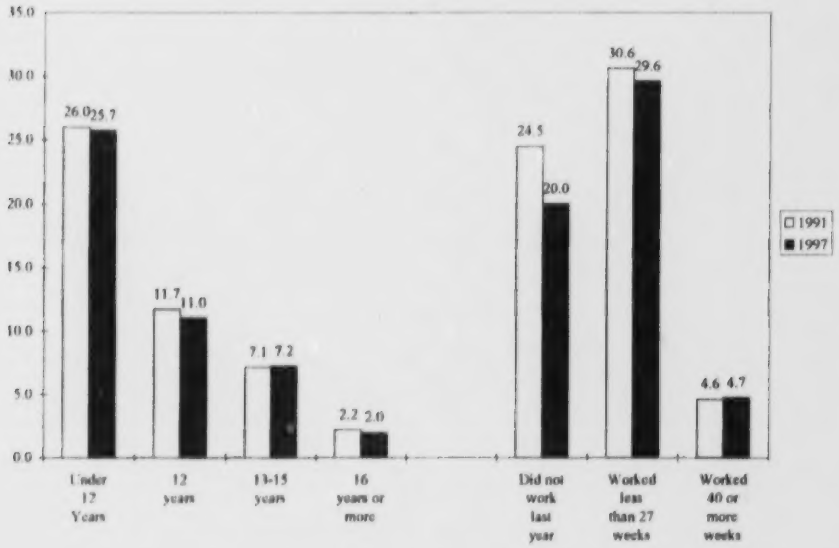
Chart 3.2:
The Percent of U.S. Families with Incomes Below the Poverty Line by Age and Race/Ethnic Origin of the Family Householder, 1991 and 1997



Poverty rates among U.S. families in the 1990s also varied considerably by race/ethnic group. Black and Hispanic families continue to face the most severe poverty problems, with poverty rates of 23% to 30% among these two race/ethnic groups during each year of the time period covered by our analysis. White, non-Hispanic families encountered considerably lower rates of poverty, with their poverty rates falling within the 6% to 7% range over the 1991 to 1997 period. Both Black and Hispanic families were approximately four times as likely to be poor as their White non-Hispanic counterparts. One recent sign of progress, however, is the steep decline in the poverty rate among Black families since the end of the recession in 1991. By 1997, the poverty rate among Black families had fallen close to 23% compared to a 30% rate of poverty during 1991.

Poverty rates of families also differed considerably by the educational attainment of the family head, declining steadily with their educational attainment (Chart 3.3). More than a quarter of the families headed by a person lacking a high school diploma were poor during each of the four years covered by our analysis. Families headed by high school graduates tended to encounter poverty rates in the 11 to 12 percent range, less than half as high as those of families headed by a high school dropout. Poverty rates of families headed by four year college graduates tended to fall within the 2 to 2 1/2 percent range during the 1990s. Their poverty rates were only a fifth as high as those of families headed by high school graduates and were less than a tenth of those encountered by families headed by an individual lacking a high school diploma. That poverty rates by education of the family head declined so little as prosperity spread during the 1990s suggests that the bulk of the improvement in family poverty rates over the entire 1991-1997 period was attributable to improved educational attainment among family householders rather than to sustained improvements in poverty rates among families in each educational attainment category.

Chart 3.3:
The Percent of U.S. Families with Incomes Below the Poverty Line by Educational Attainment and Work Experience of the Family Householder, 1991 and 1997



Poverty rates of families also were strongly associated with the amount of work by the family head during the calendar year. Families with a head who worked, but for 6 months or less during each calendar year, tended to face the highest incidence of poverty problems, with 30% of such families having incomes below the poverty line.[39] In contrast, families with a householder who worked 40 or more weeks during the calendar year tended to face poverty rates of less than 5%. It should be noted, however, that the ability of a number of these latter families to escape poverty also tended to be influenced by the work effort of other family members. It nevertheless does remain true that the ability of family heads to secure year-round, full-time employment does substantially reduce the likelihood that their families will experience a poverty problem during any given calendar year. The trends in poverty rates among families whose householder had worked at some point during the calendar year also reveal little or no change in poverty rates within each employment subgroup. The modest overall decline in the family poverty rate between 1991 and 1997 was thus primarily due to an increase in the fraction of family householders who worked for 40 or more weeks.

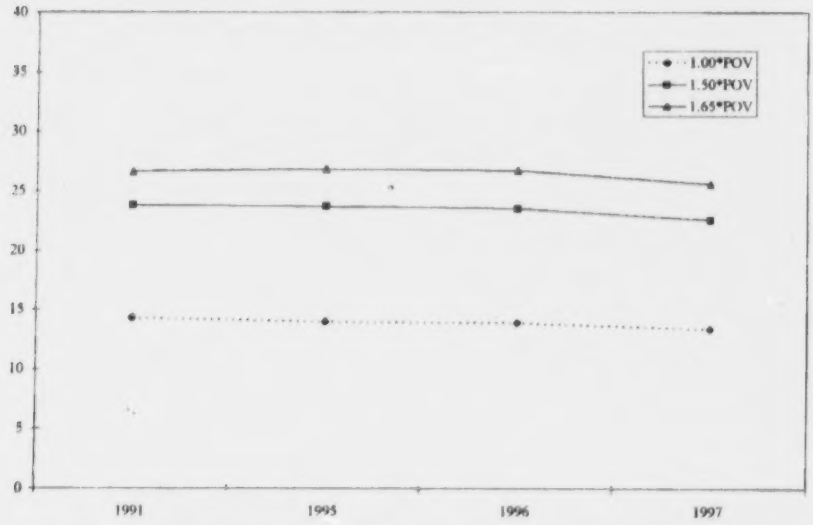
Patterns of Income Inadequacy

Findings on trends in the share of U.S. families with incomes below 165% of the poverty line over the 1991 to 1997 period are displayed in Table 3.4 and Chart 3.4. Overall, there was only a very modest degree of progress in reducing the percent of families with incomes below this particular income threshold. In 1991, 22% of all of the nation's families had a combined money income below 165% of the poverty line. By 1997, the fraction of families with an income below this threshold had declined only modestly to 21%. There were moderate declines in the fraction of families experiencing such an income inadequacy problem in each of our major age subgroups, with the exception of those families with a householder 35-44 years of age, who experienced a slight increase in their incidence of income inadequacy problems over this time period. As was true for the findings on family poverty rates, the incidence of such income inadequacy problems varied substantially by age group, with half of the families headed by a person under 25 failing to achieve this income standard versus only 14% of those families headed by an individual 55-64 years old.

Table 3.4:
The Per Cent of U.S. Families with Incomes Below 165% of the Poverty Line by Selected Demographic and Socioeconomic Characteristics of the Family Householder: Selected Years 1991 to 1997

Family Group	(A) 1991	(B) 1995	(C) 1996	(D) 1997
All	22.0	21.8	21.9	20.9
Age Group				
<25	52.9	54.0	52.9	50.6
25-34	30.7	30.2	31.0	29.3
35-44	19.7	21.1	21.1	20.7
45-54	13.7	13.4	13.4	12.7
55-64	16.1	16.4	16.1	14.4
65+	21.0	18.8	19.8	19.3
Race-Ethnic Group				
Black , non-Hispanic	46.2	42.8	43.2	40.9
Hispanic	45.7	48.7	46.8	44.9
Other non-Hispanic	26.6	27.1	25.1	20.4
White non-Hispanic	15.9	15.2	15.3	14.7
Educational Attainment				
<12 Years	45.7	47.5	47.2	46.8
12 Years	23.1	23.2	23.7	22.6
13-15 Years	15.3	17.2	17.2	16.4
16+ Years	5.2	5.8	6.1	5.3
Weeks Worked Last Year				
Did not work last year	39.7	37.7	38.5	35.7
Worked less than 27 weeks	46.1	44.8	45.6	45.3
Worked 40 or more weeks	12.6	13.4	13.2	12.8

Chart 3.4:
Trends in the Percent of Families with Incomes Below Selected Multiples of the Poverty Line, 1991-1997



Similar to our findings on poverty rates, Black, non-Hispanic families tended to experience the most substantive declines in the incidence of income inadequacy problems between 1991 and 1997. While 46% of all Black, non-Hispanic families had incomes below 165% of the poverty line in 1991, only 41% of such families experienced similar income inadequacy problems in 1997, a decline of 5 percentage points. Hispanic families, on the other hand, failed to achieve any significant progress in obtaining incomes above this particular adequacy threshold. Only 55% of Hispanic families obtained an income above this threshold in 1997, basically the same as in 1991. Similar findings on a lack of progress also pertain to White, non-Hispanic families of whom 15% were unable to achieve this adequacy standard in 1997 versus 16% in 1991.

The income inadequacy problems of families in each of our four educational attainment subgroups basically experienced no change over this time period. Families headed by an individual who lacked a high school diploma or a GED certificate were just as likely to experience an income inadequacy problem in 1997 as they were in 1991. Among families in this group, nearly 47% were unable to achieve an income above 165% of the poverty line in 1997. Similar findings on a lack of progress

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over the decade pertain to families in each of our other educational attainment subgroups. The moderate degree of progress for all families that was achieved over this time period again seemed to be entirely attributable to an improvement in the educational attainment of family householders rather than to any sustained progress in the ability of families in each educational subgroup to achieve an income above this particular income threshold.

The incidence of income inadequacy problems among families in each work experience category tended to be characterized by little to no change over the decade, with the exception of those families with a householder who was not employed at all during the year. This group of families tends to be dominated by elderly individuals and thus their progress is more reflective of improvements in the incomes of elderly families rather than of non-elderly working families. Those families headed by an individual who was employed for a half year or less tended to experience the same incidence of income inadequacy problems in 1997 as they did in 1991 with 45% of such families encountering such a problem in 1997. Among families with a householder employed for 40 or more weeks during the calendar year, the incidence of income inadequacy problems was just as high in 1997 as it was 1991, although such families are far less likely to have an income below this particular threshold relative to families in the other work experience categories.

Changes in the Composition of Families Experiencing Income Inadequacy

While the incidence of income inadequacy problems among families rises for all subgroups as we raise the income thresholds defining adequacy, the relative rate of increase varies across these demographic and socioeconomic subgroups. As a consequence of these different rates of increase, the composition of the families with an income inadequacy problem changes as we raise the income adequacy thresholds. Key findings on this set of issues are displayed in Table 3.5.

As the income adequacy threshold is increased from 100% to 165% of the poverty line, the age composition of the families experiencing such a problem tends to shift toward the older family groups, especially those families headed by an individual 65 or older. Raising the ade-

quacy threshold to 165% also increases the fraction of families headed by white, non-Hispanics. While white, non-Hispanic families accounted for only 46% of poor families, they represented 52% of the families with an income below 165% of the poverty line. Families headed by a person with some post-secondary schooling encounter income inadequacy problems at rates well below those of their less educated counterparts, however, their share of all families with an inadequate income rises as the income threshold is raised from the poverty line to 165% of the poverty line. For example, such families represented only 23% of the nation's poor families, but they accounted for nearly 27% of the families with an income below 165% of the poverty line. Families whose householders were substantially attached to the labor market became a larger share of the families with an income inadequacy problem as the income threshold was raised to 165% of the poverty line. Such families represented only 30% of the nation's poor families, but they accounted for 41% of the families with an income below 165% of the poverty line. When the elderly are excluded from these calculations, the share of families with an income below 165% of the poverty line that had a householder with 40 or more weeks of employment rose to 47%. The "working poor" thus represent a considerably larger fraction of the families in need as the income thresholds defining adequacy are raised.

Table 3.5:
Percentage Distribution of U.S. Families with Incomes Under the Poverty Line and 165% of the Poverty Line, by Selected Characteristics of the Family Householder, 1997

Family Group	(A) Under the Poverty Line	(B) Under 165% of the Poverty Line	(C) Ratio of (B) to (A)
All	100.0%	100.0%	100%
Under 25	13.0%	10.3%	79%
25-34	30.1%	27.0%	90%
35-44	27.1%	26.3%	97%
45-54	11.6%	12.6%	108%
55-64	9.0%	9.1%	101%
65 and Over	9.3%	14.7%	159%
Black, non-Hispanic	26.2%	22.6%	86%
Hispanic	23.5%	21.1%	90%
Other, non-Hispanic	4.5%	3.9%	88%
White, non-Hispanic	45.8%	52.4%	114%
Under 12 Years	42.3%	38.1%	90%
12 years	34.9%	35.4%	102%
13-15 years	18.0%	20.2%	112%
16 years or more	4.9%	6.3%	129%
Did not work last year	46.7%	41.2%	88%
Worked less than 27 weeks	17.4%	13.2%	76%
Worked 40 or more weeks	30.3%	40.7%	134%
Family Householder Under 65 years Old			
Total	100%	100%	100%
Did not work last year	41.9%	32.2%	77%
Worked less than 27 weeks	19.0%	14.9%	79%
Worked 40 or more weeks	33.1%	47.1%	142%

Source: March 1998 CPS Survey, tabulations by Center for Labor Market Studies.

Trends in the Incidence of Poverty and Income Inadequacy Problems Among the Entire Population

The March CPS data can also be used to estimate the number of persons in the nation who experienced a poverty or other type of income inadequacy problem during a calendar year. The incidence of poverty problems is greater among the overall population than among families for several different reasons. First, persons living on their own or with others to whom they are not related face considerably higher rates of poverty than persons living in families. This is particularly true of the elderly, of whom 21% of those living on their own were poor in 1996. Second, the rate of poverty is higher for larger families than for smaller families. For example, the 1996 poverty rate of families containing 4 persons was 10.5% while it was 14% for families containing five persons, 21% for families with six persons , and 30% for families with seven or eight persons.

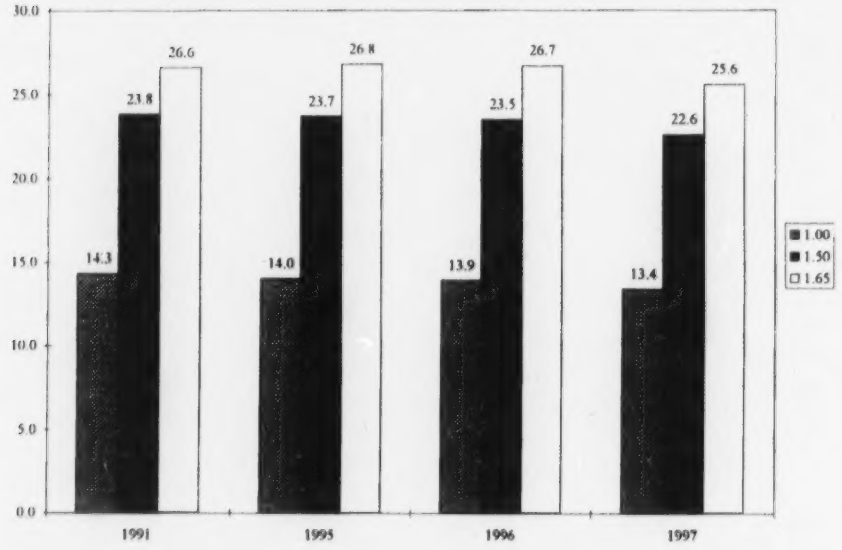
The estimated rate of poverty among all persons in the United States during 1991 was 14.3%. The overall poverty rate of persons remained at or close to 14% in 1995 and 1996 before declining to 13.4% during 1997 (Table 3.6 and Chart 3.5). The fraction of the population with an income below 165% of the poverty line was nearly twice as high as the fraction with an income below the poverty line during each year of the 1990's. In 1991, 26% of the population had an income below 165% of the poverty line, and the share doing so remained at that rate throughout the 1995 to 1997 period. One-fourth of the nation's population was characterized by an income inadequacy problem during the entire 1990's despite renewed prosperity as measured by GDP growth, rising employment, and declining unemployment.

Table 3.6:
Trends in the Percent of Persons with Annual Incomes Below Specified Multiples of the Poverty Line, Selected Years 1991 to 1997

Poverty Line Multiple	1991	1995	1996	1997
1.00	14.3	14.0	13.9	13.4
1.50	23.8	23.7	23.5	22.6
1.65	26.6	26.8	26.7	25.6

Sources: March 1992, 1996, 1997, and 1998 CPS Surveys, tabulations by Center for Labor Market Studies.

Chart 3.5:
Trends in the Percent of Persons with Annual Incomes Below Specified Multiples of the Poverty Line, Selected Years 1991 to 1997



How many persons actually live in households with inadequate incomes? For 1997, we have generated estimates of the number of U.S. residents falling below each of our three income adequacy thresholds (Chart 3.6). During 1997, there were nearly 36.2 million persons with incomes below the poverty line, 61 million with incomes below 150% of the poverty line, and nearly 69 million with incomes below 165% of the poverty line. While the share of the U.S. population with incomes below 165% of the poverty line in 1997 was slightly below that of 1991, the growth of the population over this time period led to an increase in the absolute number of persons with an income below the 165% poverty threshold (68.8 million in 1997 versus 66.8 million in 1991).

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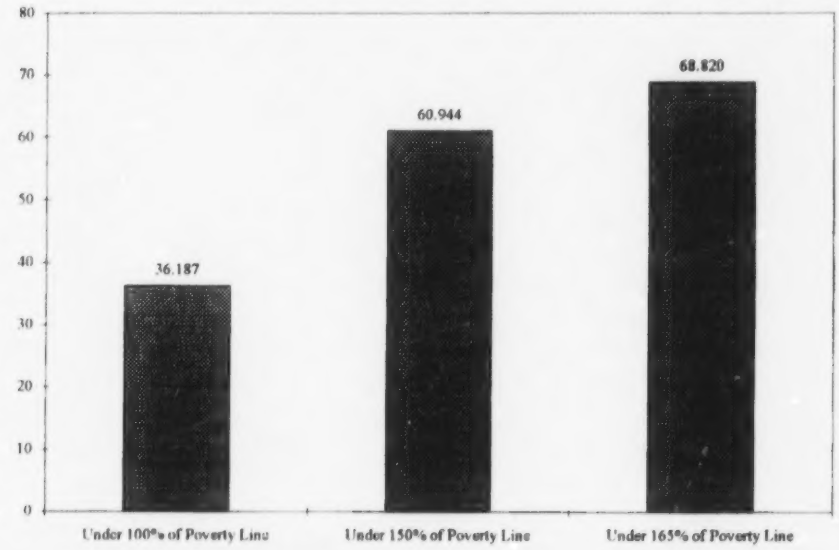
Chart 3.6:
Number of Persons in the U.S. with Money Incomes Below Specified Multiples of the Poverty Line, 1997
(Numbers in Millions)



The Effects of In-Kind Benefits and Taxes on Poverty and Income Inadequacy Rates

One additional set of criticisms directed at the official poverty statistics is concerned with the failure of the official poverty measures to take into consideration the many in-kind benefits and tax credits that can be received by low income families.[40] The money income measures used by the U.S. Census Bureau in determining the poverty status of a given family do not include the value of such in-kind benefits as food stamps, Medicare and Medicaid, rental subsidies, or the federal Earned Income Tax Credits, the latter of which have been substantially increased in value during the 1990's to provide additional assistance to low income earners, especially those with children.[41] The money income measures also ignore the effects of any payroll or personal income taxes paid by the members of a family. All of the money income measures are pre-tax measures. The failure to incorporate the values of these in-kind benefits into the money incomes of families and to adjust for the effects of taxes does constitute a valid criticism of the official poverty measures. Food stamps are the near equivalent of cash income, and the Earned

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Income Tax credits received by low income families are the equivalent of cash. Medicare and Medicaid benefits are more difficult to convert into a cash equivalent; however we will adopt the procedures developed by the U.S. Census Bureau for converting these benefits into a cash equivalent via a fungible value methodology.[42] Since the poverty income thresholds were designed to measure an ability to afford the consumption of a general level of goods and services, the money incomes of families should be adjusted to exclude all payroll taxes and state and federal income taxes.

The March CPS surveys do capture information on the receipt of food stamps by household members, the value of the food stamps received, the amount of Earned Income Tax Credits received by a family, their receipt of rental subsidies, and their coverage under Medicaid and Medicare health insurance programs. The U.S. Census Bureau provides imputed estimates of the values of rental subsidies, the fungible value of Medicaid and Medicare benefits, and the amount of payroll and federal and state income taxes paid by family members. The estimated values of pension contributions by federal employees also appear on the CPS public use tapes.[43]

We have developed new estimates of the per cent of U.S. families with incomes below each of our four income adequacy standards in 1995 and 1996, adjusting the money income measures for the estimated values of food stamps, rental subsidies, Medicare and Medicaid benefits, and Earned Income Tax Credits as well as the estimated value of Social Security payroll taxes and federal and state income taxes. Findings of our analysis are displayed in Table 3.7. The net effect of incorporating both the in-kind benefits and taxes is to reduce the poverty rate among families by 2.4 percentage points in both 1995 and 1996. For example, the estimated 1995 poverty rate among the nation's families falls from 10.8% to 8.4% after including the effects of these in-kind benefits and taxes.

However, the impacts of in-kind benefits and taxes are much more moderate on the incidence of income inadequacy problems for the two highest income adequacy standards, declining only from 21.9% to 21.5% at a 165% poverty multiple, for instance. This result is attributable to the fact that the values of most of these in-kind benefits decline as the income of a family rises and the amount of taxes that they pay ris-

es fairly considerably as their income increases above the official poverty level even at relatively low levels of income.[44]

Table 3.7:
Comparisons of the Per Cent of U.S. Families with Money Incomes Below Selected Multiples of the Poverty Line, Excluding and Including In-kind Benefits and Payroll and Income Taxes, 1995 and 1996

	1995		1996	
Poverty Multiples	Excluding Benefits and Taxes	Including Benefits and Taxes	Excluding Benefits and Taxes	Including Benefits and Taxes
1.00	10.8	8.4	11.0	8.6
1.33	12.8	10.4	13.1	10.6
1.50	19.0	17.8	19.1	18.1
1.65	21.8	21.2	21.9	21.5

Thus, even after incorporating the effects of in-kind benefits and taxes, slightly more than "One Fifth of the Nation's Families" were found to have incomes below the 165% income adequacy standard during both 1995 and 1996. As noted earlier, the nation has made very little progress in raising families above the 165% poverty income threshold during the 1990's despite high levels of net new job creation and substantially lower rates of unemployment. Clearly, much more needs to be done to raise the disposable incomes of families in the bottom fifth of the income distribution.

The Geography of Family Poverty and Income Inadequacy

To identify trends in poverty and income inadequacy problems of families across regions and states, we estimated family poverty rates for families in each of the nine geographic divisions of the nation and across each of the 50 states over the 1995 to 1997 time period.

Regional Differences in Poverty Incidence

Findings on poverty rates among families in the nine geographic divisions are displayed in Table 3.8. The average annual rate of poverty over the 1995 to 1997 period for the nine geographic regions ranged from lows of 8.2% in New England and 8.4% in the East North Central region to highs of 13 to 14% in the East South Central and Southwestern regions of the country. The magnitude of the differentials in poverty

rates between New England and the South are diminished considerably when the cost of living is taken into consideration. Findings on this topic will be discussed in more detail in a following section on state poverty rates adjusted for differences in the estimated cost of living. Over the 1995 to 1997 period, changes in family poverty rates across the nine geographic regions were somewhat mixed. Three of the regions experienced no change in their poverty rates over this time period, one region experienced a modest increase in its poverty rate (East North Central Region), and the remaining five regions experienced modest declines in their poverty rates ranging from .5 to 2.2 percentage points. The East South Central region, which includes the states of Kentucky, Tennessee, Alabama and Mississippi, experienced the largest decline in its poverty rate over this time period, with the incidence of such problems declining from 14.5% in 1995 to 12.3% in 1997.

Table 3.8
Family Poverty Rates by Geographic Division of the U.S., 1995 to 1997 and Three Year Averages
(Numbers in Percent)

Geographic Division	(A) 1995	(B) 1996	(C) 1997	(D) Three Year Averages
U.S. Total	10.8	11.0	10.3	10.7
New England	8.4	8.2	7.9	8.2
Middle Atlantic	10.8	11.2	10.6	10.9
East North Central	8.6	8.8	7.8	8.4
West North Central	7.7	7.6	8.3	7.9
South Atlantic	10.8	10.7	10.1	10.5
East South Central	14.5	13.5	12.3	13.4
Southwest	13.7	14.3	13.7	13.9
Mountain	10.3	11.2	10.2	10.6
Pacific	12.1	12.4	11.5	12.0

Sources: March 1996, 1997, and 1998 CPS surveys, tabulations by Center for Labor Market Studies.

For each of the nine geographic regions, estimates of the percent of families with incomes below the poverty line, 150% of the poverty line and 165% of the poverty line during 1996 are displayed in Table 3.9. Findings reveal that the fraction of families with an income below each of the three adequacy thresholds rises considerably as we move from the poverty line to 165% of the poverty line. For each of the nine geographic regions, the number of families with incomes below 165% of the poverty line ranged from 183% to 238% of the number of such families with incomes below the official poverty line. Thus, in each geographic region, the share of families falling below the 165% poverty income threshold was close to double the share of families with incomes below the official poverty line.

Table 3.9:
Comparisons of the Percent of Families with Annual Incomes
Below Selected Multiples of the Poverty Line by Geographic Division, 1996

Geographic Division	(A) Below Poverty	(B) Below 1.50* Poverty	(C) Below 1.65* Poverty	(D) Col. C as % of Col. A
New England	8.2	14.3	16.5	201
Middle Atlantic	11.2	18.6	20.5	183
East North Central	8.8	15.7	18.1	206
West North Central	7.6	14.8	18.1	238
South Atlantic	10.7	19.2	22.4	209
East South Central	13.5	23.6	27.1	201
Southwest	14.3	24.7	27.1	194
Mountain	11.2	19.7	22.8	203
Pacific	12.4	20.7	23.5	189

Sources: March 1997 CPS survey, tabulations by Center for Labor Market Studies.

The impact of in-kind benefits and taxes on the estimated share of families with incomes below the poverty line and 165% of the poverty line in each of the nine geographic regions are displayed in Table 3.10. Similar to our findings for the nation as a whole, the inclusion of in-kind benefits in family incomes reduced the estimated incidence of poverty problems among families by 2 to 3 percentage points in each of the nine geographic regions during calendar year 1996. At the same time, however, inclusion of both in-kind benefits and personal and payroll taxes tends to have only modest impacts on the estimated incidence of fami-

lies with incomes below the 165% poverty threshold. In eight of the nine regions, the estimated percent of families with incomes below 165% of the poverty line tends to fall by only 0.1 to 1.2 percentage points once the effects of both in-kind benefits and taxes are included. In the Southwest region, the estimated incidence of such income inadequacy problems actually rises modestly by 0.4 percentage points when in-kind benefits and taxes are taken into consideration. Thus, similar to the findings for the entire nation, the inclusion of a range of in-kind benefits and taxes in our family income estimates does not substantively change our estimates of the fraction of families with an estimated income below the 165% poverty threshold.

Table 3.10:
Comparisons of the Percent of Families with Incomes Below 100% and 165% of the Poverty Line Excluding and Including In-Kind Benefits and Payroll and Income Taxes by Geographic Division, 1996

	Below Poverty			Below 165% of Poverty		
Geographic Division	(A) Money Income Only	(B) Including In-Kind Benefits and Taxes	(C) Col. B-A	(A) Money Income Only	(B) Including In-Kind Benefits and Taxes	(C) Col. B-A
New England	8.2	6.1	-2.1	16.5	15.4	-1.1
Middle Atlantic	11.2	8.8	-2.4	20.5	19.7	-.8
East North Central	8.8	6.9	-1.9	18.1	17.7	-.4
West North Central	7.6	5.4	-2.2	18.1	17.8	-.3
South Atlantic	10.7	8.9	-1.8	22.4	21.9	-.5
East South Central	13.5	11.0	-2.5	27.1	25.9	-1.2
Southwest	14.3	11.5	-2.8	21.8	22.2	+.4
Mountain	11.2	8.9	-2.3	22.8	22.7	-.1
Pacific	12.4	9.0	-3.4	23.3	23.0	-.5

Family Poverty Rates by State, 1995 to 1997

The annual March CPS surveys include interviews with a statistically representative sample of households in each state and the District of Columbia. The CPS findings can, thus, be used to generate estimates of annual poverty rates for families in each state. The number of family households that are interviewed in each state does, however, vary quite considerably. For example, during March 1998, the sample of family households ranged from lows of 264 in the District of Columbia and

300 in the state of Hawaii to a high of 3,250 in the state of California. Given the small number of sample families in some of these states, we have estimated poverty rates for each state for the years 1995 to 1997 and taken simple three year averages of those poverty rates. Findings are displayed in Table 3.11.

Table 3.11:
Family Poverty Rates by State, 1995 to 1997 and Three-Year Averages
(Numbers in Percent)

State	1995	1996	1997	1995-1997 Average
U.S. Total	10.8	11.0	10.3	10.7
District of Columbia	22.0	21.5	20.9	21.4
New Mexico	20.1	21.7	17.7	19.8
Mississippi	18.2	17.9	14.6	16.9
Louisiana	15.8	17.9	13.6	15.8
New York	14.2	14.4	13.8	14.1
Arizona	12.6	16.1	13.3	14.0
Texas	13.6	13.8	14.0	13.8
Kentucky	13.1	14.3	12.9	13.4
Arkansas	11.4	13.5	14.7	13.2
West Virginia	13.1	14.5	11.9	13.2
Alabama	15.6	11.3	12.6	13.2
California	13.2	13.6	12.6	13.1
Oklahoma	12.9	12.9	11.4	12.4
Montana	10.5	14.0	12.2	12.2
Florida	13.2	12.1	11.3	12.2
South Carolina	16.0	10.3	10.2	12.2
Tennessee	12.9	12.5	10.5	12.0
Georgia	8.7	11.8	11.4	10.6
Idaho	11.0	8.2	11.3	10.2
Wyoming	9.0	9.2	10.8	9.7
North Carolina	10.4	9.5	8.9	9.6
Ohio	9.5	10.4	8.7	9.5
South Dakota	11.0	7.9	9.5	9.4
Hawaii	8.2	9.0	10.6	9.3
Illinois	9.2	9.5	9.0	9.2
Massachusetts	9.8	8.3	9.6	9.2
Rhode Island	9.5	8.4	9.3	9.1
Michigan	9.7	9.5	7.7	9.0
Virginia	7.5	9.6	9.8	9.0
Washington	9.9	9.2	7.3	8.8
Kansas	9.1	9.9	7.2	8.7
Pennsylvania	9.0	9.2	7.7	8.6

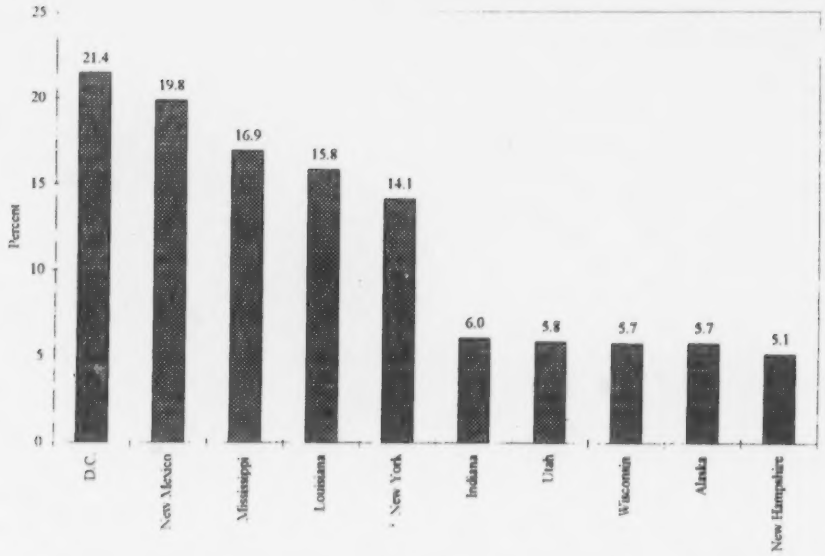
continued next page

State	1995	1996	1997	1995-1997 Average
Oregon	7.4	8.8	9.5	8.6
Missouri	7.2	7.5	10.8	8.5
North Dakota	7.7	6.5	10.4	8.2
Maine	7.5	8.4	8.1	8.0
Vermont	7.5	9.2	7.2	8.0
Iowa	8.8	7.6	6.7	7.7
Nebraska	8.0	7.1	6.6	7.2
Delaware	7.5	7.3	6.9	7.2
Connecticut	7.4	8.9	5.1	7.1
New Jersey	5.7	6.9	7.7	6.8
Minnesota	6.2	6.6	7.1	6.6
Nevada	6.1	4.7	8.4	6.4
Maryland	6.3	6.6	5.9	6.3
Colorado	7.0	6.3	5.0	6.1
Indiana	6.8	5.4	5.7	6.0
Utah	5.8	5.7	6.0	5.8
Wisconsin	5.4	6.1	5.7	5.7
Alaska	5.2	6.2	5.7	5.7
New Hampshire	4.6	4.1	6.5	5.1

Sources: March 1996, 1997, and 1998 CPS Surveys, tabulations by Center for Labor Market Studies.

The poverty rates of families varied considerably across states over the 1995 to 1997 period. The District of Columbia ranked highest on this measure, with a poverty rate of 21.4%, closely followed by New Mexico with a poverty rate of just under 20% (Chart 3.7). At the bottom of the poverty rate distribution were the states of Indiana, Utah, Wisconsin, Alaska, and New Hampshire, with poverty rates ranging from 5.1 to 6.0 per cent. The five states with the highest poverty rates were characterized by incidences of poverty rates for families that were three to five times as high as those of the bottom five states.

Chart 3.7:
States with the Five Highest and Five Lowest Family Poverty Rates,
1995 to 1997 Averages



Valid comparisons of poverty rates across states are handicapped by the failure of the existing poverty measures to adjust for estimated differences in the local cost of living. The existing poverty methodology applies the same income thresholds to families in each state and local area across the country, regardless of its geographic location or the estimated local cost of living. To address this shortcoming, we will generate a new set of poverty estimates for each state based on cost of living adjustment factors that rely on estimated differences in the costs of securing adequate rental housing in each local area.

Adjusting State Family Poverty Rates for Cost of Living Differences

The above estimates of state poverty rates for families over the 1995 to 1997 time period were based on the official poverty definitions and were not adjusted for any differences in the estimated cost of living across states or substate areas. As noted in our earlier discussions of cost of living adjustment factors for individual metropolitan and nonmetropolitan areas, variations in the cost of rental shelter are believed to underlie the bulk of the differences in the cost of living across local

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areas. We have used a slightly modified version of a methodology earlier developed by the National Research Council to estimate a local cost of living index for individual metropolitan and non-metropolitan areas across the entire country based on variations in rental shelter costs at the time of the 1990 Census. A more detailed discussion of the data sources, the assumptions, and the calculations underlying these estimates is presented in Appendices A and B. The official poverty threshold for each family in a given metropolitan area was adjusted upward by the estimated value of the local cost of living index.

Our estimates of 1995 state family poverty rates adjusted for the cost of living are displayed in Column B of Table 3.12. The cost of living adjusted poverty rates are compared with the official poverty rates, and the sizes of the estimated differences are displayed in Column C. Since the cost of living indices for each local area are centered on a value of 100 for the entire nation, some states will experience a rise in their poverty rates while others will be adjusted downward, depending on the relative costs of specified rental housing units in their communities. Nine of the ten highest poverty rate states remained in the top ten even after adjusting for cost of living differences although a number of them did change ranks within the top ten. For example, New York moved from sixth to third highest and California went from ninth to fourth highest. Only West Virginia fell out of the top ten, moving from tenth to fourteenth due to its lower cost of living. Of the ten states in the bottom of the distribution in 1995, seven remained there after adjusting for cost of living differences. Alaska, New Hampshire, and New Jersey experienced a substantive rise in their estimated family poverty rates after cost of living adjustments. Alaska's poverty rate rose from 5.2% to 8.2%, moving it from 49th to 34th. The New England states were most adversely affected by the cost of living adjustment factors since they had some of the highest rental costs in the nation at the time of the 1990 Census. Each New England state experienced a deterioration in its relative position by ten or more places, with Massachusetts moving from 21st to 11th highest in the nation followed immediately by Rhode Island. Adjustments for the cost of living do moderately reduce the relative degree of dispersion in the state poverty distribution, but their major impact is on the comparative position of individual states.

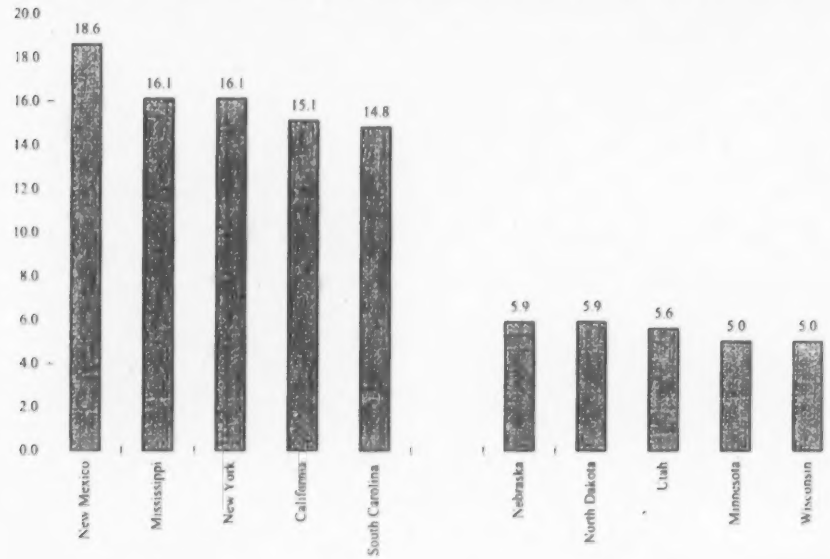
Table 3.12:
The 1995 Official Family Poverty Rates of
States and Their Cost of Living Adjusted Poverty Rates
(Rankings by 1995 Official Poverty Rate)
(in %)

State	(A) Poverty Rate	(B) Cost of Living Adjusted Poverty Rate	(C) Col. B-Col. A
1. New Mexico	20.1	18.6	-1.5
2. Mississippi	18.2	16.1	-2.1
3. South Carolina	16.0	14.8	-1.2
4. Louisiana	15.8	13.1	-2.7
5. Alabama	15.6	12.4	-3.2
6. New York	14.2	16.1	1.9
7. Texas	13.6	12.5	-1.1
8. California	13.2	15.1	1.9
9. Florida	13.2	13.4	0.2
10. West Virginia	13.1	11.3	-1.8
11. Kentucky	13.1	10.3	-2.8
12. Oklahoma	12.9	11.5	-1.4
13. Tennessee	12.9	10.9	-2.0
14. Arizona	12.6	12.7	0.1
15. Arkansas	11.4	8.6	-2.8
16. Idaho	11.0	9.8	-1.2
17. South Dakota	11.0	9.0	-2.0
18. Montana	10.5	9.3	-1.2
19. North Carolina	10.4	9.5	-0.9
20. Washington	9.9	10.8	0.9
21. Massachusetts	9.8	12.4	2.6
22. Michigan	9.7	9.8	0.1
23. Rhode Island	9.5	12.3	2.8
24. Ohio	9.5	8.9	-0.6
25. Illinois	9.2	9.3	0.1
26. Kansas	9.1	8.3	-0.8
27. Pennsylvania	9.0	9.0	0.0
28. Wyoming	9.0	8.5	-0.5
29. Iowa	8.8	7.3	-1.5
30. Georgia	8.7	8.4	-0.3
31. Hawaii	8.2	10.4	2.2
32. Nebraska	8.0	5.9	-2.1
33. North Dakota	7.7	5.9	-1.8
34. Maine	7.5	10.0	2.5
35. Vermont	7.5	9.3	1.8
36. Virginia	7.5	7.5	0.0
37. Delaware	7.5	7.2	-0.3

continued next page

State	(A) Poverty Rate	(B) Cost of Living Adjusted Poverty Rate	(C) Col. B- Col. A
38. Connecticut	7.4	8.8	1.4
39. Oregon	7.4	7.6	0.2
40. Missouri	7.2	7.2	0.0
41. Colorado	7.0	6.1	-0.9
42. Indiana	6.8	6.1	-0.7
43. Maryland	6.3	6.6	0.3
44. Minnesota	6.2	5.0	-1.2
45. Nevada	6.1	6.1	0.0
46. Utah	5.8	5.6	-0.2
47. New Jersey	5.7	8.3	2.6
48. Wisconsin	5.4	5.0	-0.4
49. Alaska	5.2	8.2	3.0
50. New Hampshire	4.6	6.8	2.2
United States	10.8	10.8	0.0

Chart 3.8:
Top Five and Bottom Five States on Cost of Living Adjusted Poverty Rate



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The Consequences Summarized

Raising the poverty threshold to 165% of its current level and thereafter continuing it at 50 percent of the pre-tax median family income would substantially increase the numbers of those considered to have inadequate incomes but would not necessarily change antipoverty policies. The number and proportions considered poor would double. The proportions of those who are older, non-minority, high school-educated and employed would rise among the poor in contrast to their counterparts. Considering the receipt of in-kind benefits and the payment of payroll and income taxes would offset each other to the extent that the incidence of income inadequacy at the new poverty level would change less than one percentage point. Though expenditures on anti-poverty efforts would not necessarily change, it is to be hoped that recognition of how far the nation is from achieving family income adequacy would have a positive impact in that direction. At the least, human capital investments on behalf of low income individuals with the potential for employment in occupations paying family-sustaining earnings should increase to the advantage of the entire nation. The necessity of such policy changes in the employment and training field is the message of the following chapter.

Chapter Four:

Assessing the Performance of Employment and Training Programs in Achieving Income Adequacy Standards

The family income adequacy standards described in the preceding chapters can be used to assess the performance of a diverse array of human resource programs, including many employment and training programs which traditionally have been aimed at raising the employability and the post-program earnings of program participants. Federally-funded job training programs for the unemployed and the economically disadvantaged often have included mission statements that emphasize improvements in the employment and earnings of program participants. The legislation authorizing these programs has never explicitly specified them as weapons against poverty as federally defined, but that has always been an implicit presumption of their existence.

Programs funded under Title One of the Comprehensive Employment and Training Act of 1973 were designed to promote unsubsidized employment opportunities for the unemployed, the underemployed, and the economically disadvantaged and to help them achieve economic self-sufficiency. The law, however, did not provide a definition of self-sufficiency or call upon states or local prime sponsors to measure their success in achieving self-sufficiency for participants. National evaluations of CETA job training programs tended to stress the impacts of the programs on raising the annual earnings of participants relative to those of a comparison group of non-participants. Very little emphasis was placed on measuring the absolute earnings levels of participants and their ability to achieve annual earnings sufficiently high to

raise their families above the federal government's poverty line or some other measure of income adequacy. While CETA job training programs were found to be successful in raising the annual earnings of adult females, the findings for adult males were more often mixed.[45] Yet, little was written about the success of these programs in raising the families of participants out of poverty.

The CETA legislation was replaced by the Job Training Partnership Act of 1982. The Statement of Purpose for Section 2 of JTPA declared that programs under this section were designed to bolster the labor force participation of program participants, to increase their employment and earnings, to enhance their educational attainment and occupational proficiencies, and reduce their welfare dependency. In Section 106 of the legislation, the Congress declared that job training was an investment in human capital. The return on this human capital investment was to be measured in part on the basis of its success in achieving "long-term economic self sufficiency" for participants. Again, however, the U.S. Congress did not provide any definition of economic self-sufficiency to guide either state or national evaluations of the effectiveness of the job training programs funded under the act. National impact evaluations tended to emphasize the impacts of the programs in raising the earnings and educational attainment of participants and reducing their dependence on various types of government transfer payments.[46] The findings of the impact evaluations for training programs for economically disadvantaged adults revealed that they were successful in raising their earnings above those of their control group counterparts over the course of the first 30 to 60 months following program participation and that these earnings gains were large enough to offset the social costs involved in administering the programs.[47] Very little attention, however, was paid to the actual levels of the annual earnings of participants and their size relative to the poverty line or any other type of income adequacy standard.

During 1998, the U.S. Congress passed the Workforce Investment Act which will replace the Job Training Partnership Act by the end of the year 2000. In the Statement of Purpose for state and local workforce investment systems under Section 106 of the act, the Congress noted that programs should promote increases in the employment and earnings of participants, improve their occupational skills, and reduce their

welfare dependency. There again is no discussion of the desired levels of those earnings. In Section 134(d)3A of the act, it is noted that intensive services can be offered to the employed who need them "to obtain or retain employment that allows for self-sufficiency". However, the Congress does not provide any definition of self-sufficiency in the act. In the accountability provisions under Section 136, states are called upon to track the post-program employment and earnings of employed terminees for a six month period following their initial placement. Under Section 136(d)2, states are also called upon to prepare an annual report for the Secretary of Labor that will document progress in achieving key performance standards, including data on the employment and earnings of terminees over a 12 month period. Ideally, these earnings data would be presented in a format that would allow one to identify whether the earnings were high enough to enable the former participants and their families to rise above the poverty line and other income adequacy standards. A set of methodologies for doing so is presented below.

An Overview of the JTPA SPIR Data System

The ability to track the progress of JTPA employment and training programs in achieving annual earnings targets for program terminees is dependent on a nationally uniform management information system (MIS) that provides data on participant characteristics, the program services received by them, and post-program employment and earnings outcomes for individual terminees. Beginning with those individuals who applied for JTPA program services on or after July 1, 1993, the U.S. Department of Labor's Employment and Training Administration implemented a new reporting system for JTPA programs operated under Title II-A (disadvantaged adults), Section 204(d)(older workers), Title II-C (disadvantaged youth), and Title III (dislocated workers) of the Job Training Partnership Act.

Much of the data from this reporting system, called the JTPA Standardized Program Information Report, or SPIR, is available to the public.[48] The SPIR public use files contain data on individual program terminees who ended their participation during a given period of time. Data are currently available for program years 1993-1996 and the SPIR 1997 files should be made available later this spring (1999).

The data elements comprising the SPIR system can be classified into five categories, as follows:[49]

- Characteristics of applicants - including their age, gender, race/ethnic origin, disability status, and eligibility status. Although each SDA must collect this information for all *applicants* to their programs, only information on *terminees* is sent to the U.S. Department of Labor and included on the public use data files.

- Characteristics of participants - including program of participation, public assistance recipiency status, educational attainment, labor force status at time of application, reading and math skills, and barriers to employment.

- Program activities and services received - includes information on the type and duration of education, work experience, and training services received and the receipt of support services.

- Program terminations and outcomes - includes information on the types of outcomes attained by JTPA participants at the time of termination, such as their unsubsidized employment status, characteristics of jobs held (hours worked, wages received, receipt of fringe benefits, and occupation of employment), and attainment of employability enhancement skills.

- Follow-up information - includes information on employment outcomes, such as employment status, hours worked, and hourly wage, thirteen weeks following termination. Follow-up interviews are conducted for a fairly large sample of terminees from Title II-A, Section 204(d), and Title III programs, but not for terminees from Title II-C programs for disadvantaged youth.

For researchers, national and state employment and training policymakers, state and local advisory boards, program operators, and other parties interested in JTPA program outcomes, the SPIR data system represents a rich source of information on JTPA program terminees at the national, state, and local levels. The system has the ability to provide information to allow researchers to determine who participates in JTPA

programs, what types of services they receive, the post-program labor market outcomes for terminees, and the influence of alternative types of treatments on program outcomes. Such information is vital not only at the national level but at the state and local Service Delivery Area level to identify past program performance and to guarantee that future employment and training dollars are allocated in an efficient and wise manner. It should be noted, however, that there are no data for comparison or control group members in the SPIR data files. Thus, one cannot conduct impact evaluations with the data.

Data on the number of terminees in each state included in the SPIR files are presented in Appendix tables C-1 through C-3. Table C-1 pertains to programs funded under Section 204(d), Table C-2 pertains to Title II-A programs, and Table C-3 pertains to Title III programs. Tables C-1 and C-2 include only individuals who received services beyond objective assessment. The 'objective assessment only' termination category is not applicable to Title III programs. It should be noted that the SPIR93 data sets include terminees for only four calendar quarters, compared to five quarters for each of the other three years listed in the tables. This partly helps to explain the larger number of terminees from Title III programs in the three latter years. Higher levels of funding for Title III programs also influenced these findings.

Alternative Measures of the Earnings of JTPA Terminees

The program emphasis of JTPA during recent years has shifted from the disadvantaged adults of Title II-A to the dislocated workers under Title III with the former terminees shrinking by 16 percent while the latter group was increasing by 72 percent during the most recent four years for which data are available (Table 4.1).

Table 4.1
Number of JTPA Title II-A and Title III Terminees, U.S., PY93 to PY96

	Title II-A	Title III
PY93	180,178	164,826
PY94	175,647	187,938
PY95	162,120	266,401
PY96	151,155	283,513
Absolute Change	-29,023	118,687
Percent Change	-16%	72%

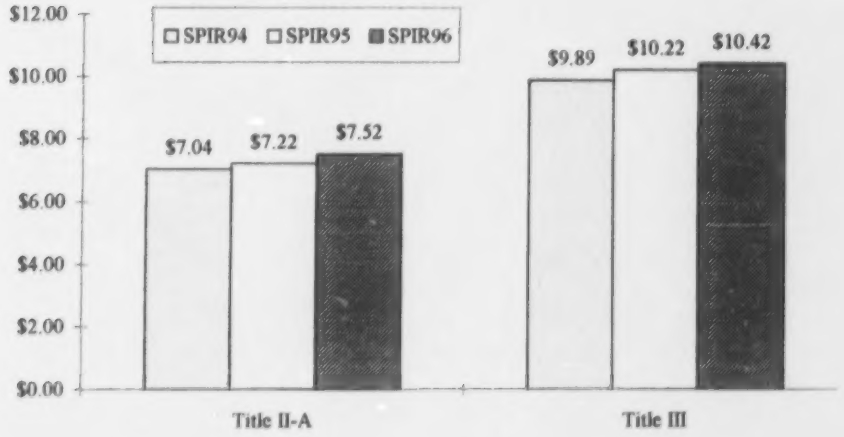
One of the primary goals of the Job Training Partnership Act has been to boost the employability and earnings of program terminees and thus enable them to earn enough in the labor market to raise the incomes of themselves and their families above some income adequacy level. This section of our monograph examines a number of issues related to the early post-program earnings of JTPA program terminees from Title II-A and Title III programs. We begin by analyzing trends over time in several measures of hourly and weekly earnings, including the mean, the median, and earnings at various points along the entire distribution. We then discuss patterns in median weekly earnings across selected demographic, socioeconomic, and service mix subgroups of the JTPA Title II-A and Title III terminee population. Following this discussion, we describe a methodology for computing measures designed to assess the extent to which JTPA terminees have achieved 'adequate' earnings and then apply this methodology to estimate the fraction of all terminees with adequate earnings during PY96. In the following chapter, we extend this analysis to demographic subgroups of terminees and to terminees across states to identify the ability of Title II-A and Title III terminees to achieve adequate post-program earnings. State findings will be presented before and after adjusting for state differences in the cost of living. A more detailed scorecard for states is presented in Appendix D and E.

Trends in the Mean and Median Wages of Job-Placed JTPA Terminees

Trends in the mean nominal hourly wages of employed Title II-A and Title III terminees over the 1994 to 1996 period are presented in Chart 4.1.[50] The hourly earnings estimates in this section of the monograph pertain to the earnings of those terminees who were employed at the

time of termination from a JTPA program, and the hourly wages have not been adjusted for inflation. The mean nominal hourly earnings of JTPA terminees have risen modestly over the past few years, increasing by approximately $.50 per hour between 1994 and 1996 for both Title II-A and Title III programs. In proportionate terms, the hourly earnings of Title II-A program terminees rose by just under 7 percent between 1994 and 1996, while the earnings of dislocated worker program terminees rose by slightly over 5 percent. Given an inflation rate of just under 6 percent between these two years, the mean real (inflation-adjusted) hourly earnings gains of JTPA terminees only matched the rate of inflation.[51]

Chart 4.1: Mean Hourly Wages of Employed Title II-A and Title III Terminees, U.S., 1994 to 1996 (in Current Dollars)



The modest increase in the nominal hourly earnings of the 'average' employed terminee over the past couple of years has been mirrored by modest increases at various points along the hourly earnings distribution. Among employed Title II-A terminees, nominal hourly earnings rose by a constant $.50 per hour between 1994 and 1996 at the 20th, 40th, 50th, 60th, and 80th percentiles of the hourly earnings distribution (Table 4.2). The percentage increases in hourly earnings were higher at the lower ends of the earnings distribution because the hourly wages were lower and thus provided a lower base for calculating the percentage changes. The percent increases in nominal hourly earnings ranged from a high of 10 percent at the 20th percentile to a low of 6 percent at

the 80th percentile. Adjusting these wage changes for the effects of inflation yields increases in real earnings of 4 percent at the 20th percentile, 2 percent at the 50th percentile, and no change at the 80th percentile.

Table 4.2: Trends in the Hourly Earnings of Employed JTPA Title II-A and Title III Terminees at Various Points Along the Earnings Distribution, 1994 to 1996

	Title II-A				
	1994	1995	1996	Absolute Change	Percent Change
20th	$5.00	$5.15	$5.50	$0.50	10.0%
40th	$6.00	$6.00	$6.50	$0.50	8.3%
50th (Median)	$6.50	$6.65	$7.00	$0.50	7.7%
60th	$7.00	$7.02	$7.50	$0.50	7.1%
80th	$8.50	$8.65	$9.00	$0.50	5.9%
	Title III				
	1994	1995	1996	Absolute Change	Percent Change
20th	$6.00	$6.00	$6.35	$0.35	5.8%
40th	$7.50	$7.83	$8.00	$0.50	6.7%
50th (Median)	$8.30	$8.50	$8.88	$0.58	7.0%
60th	$9.38	$9.86	$10.00	$0.62	6.6%
80th	$12.50	$13.00	$13.18	$0.68	5.4%

Among Title III program terminees, the absolute changes in nominal hourly earnings ranged from only $.35 at the 20th percentile to a high of $.68 at the 80th percentile. However, the proportionate increases in hourly earnings did not vary greatly along the earnings distribution, ranging from 5.4 to 7.0 percent. Given a near six percent rise in inflation over this two year period, Title III program terminees only managed to maintain their real hourly earnings over the past few years.

The absolute level of the hourly earnings for many terminees has been quite low, particularly for Title II-A programs. Findings in Table 4.2 reveal that in PY96 the twenty percent of employed Title II-A terminees with the lowest hourly earnings had earnings of $5.50 and below. Forty percent of employed Title II-A terminees had hourly earnings of $6.50 and below, and half were not able to achieve wages higher than $7.00 per hour. An individual employed at this wage rate on a year-round, full-time basis, that is, for 52 weeks and 35 hours per week,

would only earn $12,740, an amount that falls in the vicinity of the three-person family poverty threshold in 1996 (the official poverty threshold for a family of three in that year was $12,516). Thus, even assuming that all employed Title II-A terminees could secure year-round, full-time employment, approximately half of these terminees would not earn enough in the labor market to reach the deteriorated poverty threshold, let alone earn enough to support a three-person family. As we shall see below, using a more comprehensive and demanding set of measures of earnings adequacy, the current ability of the JTPA Title II-A system to produce human capital gains sufficient to raise the annual earnings of terminees to selected adequacy levels appears to be quite limited.

These findings by themselves do not imply that the JTPA training investments are not economically worthwhile. To determine the efficiency of these human capital investments, one must compare the post-program earnings, income transfers, and social experiences of former participants in JTPA programs with those of a control group or comparison group of non-participants. Earlier national impact evaluations of JTPA Title II-A employment and training programs for economically disadvantaged adults found that the programs generated social benefits in excess of the costs over the first 30 months of the post-program period.[52] The relevant issue is whether, with appropriate human capital investments, these same individuals could have qualified for occupations offering family-sustaining wages.

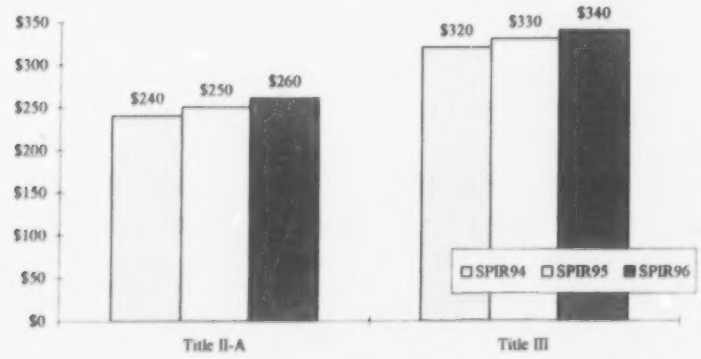
The Weekly Earnings of Employed JTPA Terminees

In addition to collecting information on the hourly earnings of persons employed at termination, the SPIR data system also collects data on their weekly hours of work. By combining the hourly wage data with the data on hours worked per week, we can construct a measure of the weekly earnings of employed terminees. An examination of the SPIR data on mean hours worked per week reveals that there has been very little change over time in the average length of the workweek, and the mean number of hours worked does not differ markedly between Title II-A and Title III terminees. Both Title II-A and Title III terminees worked an average of 37 to 38 hours per week in each of the past three years, and the median number of hours has been a constant 40. Thus,

the average employed program terminee is a full-time member of the work force.

Trends in the median nominal weekly earnings of employed terminees are portrayed in Chart 4.2. The median weekly earnings of employed individuals have risen by $10 per year for both Title II-A and Title III program terminees. The weekly earnings of Title II-A terminees have slightly outpaced the rate of inflation, while those for Title III terminees only kept pace with the rate of inflation. The median weekly earnings of PY96 Title II-A program completers, at $260, was, however, considerably less than the median $340 weekly earnings of Title III terminees. To put these findings in some comparative context, the median weekly earnings of full-time wage and salary workers in the U.S. during 1997 was $503.[53] Higher median weekly earnings among JTPA Title III terminees can be explained by the fact that they are better educated, have higher reading and math proficiencies, and are more experienced than their Title II-A counterparts. They are also more likely to be male and White, non-Hispanic, two traits also associated with higher hourly wages.

Chart 4-2 Median Nominal Weekly Earnings of Employed Title II-A and Title III Terminees, 1994 to 1996



Weekly Wage Patterns Across Demographic and Socioeconomic Subgroups of Terminees

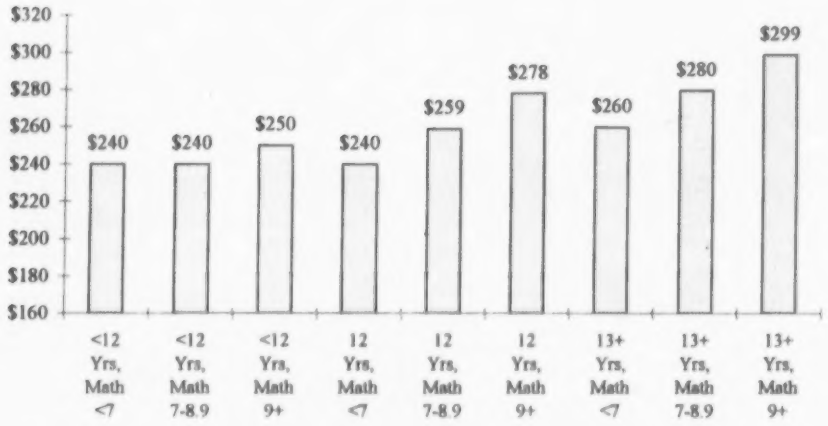
While providing important information on the experiences of the average or typical employed terminee, the median earnings of all Title II-A and all Title III terminees can mask important variations across demographic and socioeconomic subgroups of terminees. Among PY96 Title II-A terminees, the greatest differences in median weekly earnings occurred across groups defined by their educational attainment and math skill proficiencies (Table 4.3). There were little or no race or ethnic differences in these weekly earnings patterns, and earnings by age group were remarkably close except for those over 65.

Table 4.3: Median Weekly Earnings of Employed JTPA Title II-A Terminees, by Selected Characteristics, April 1, 1996 - June 30, 1997

	Percent of Total	Median Earnings	Earnings Relative to "All"
Total	100%	$260	1.00
Male	33.6%	$280	1.08
Female	66.4%	$250	0.96
White, non-Hispanic	48.3%	$270	1.04
Black, non-Hispanic	31.7%	$260	1.00
Hispanic	15.6%	$250	0.96
American Indian, Alaskan	1.4%	$271	1.04
Asian or Pacific Islander	2.9%	$280	1.08
Under 30	42.1%	$260	1.00
30-44	46.9%	$266	1.02
45-64	10.8%	$260	1.00
65 and Over	0.2%	$192	0.74
<12 Years Schooling	19.3%	$240	0.92
12 Years	57.9%	$260	1.00
13 or More Years	22.8%	$280	1.08
Math Skills <7	19.4%	$240	0.92
Math Skills 7-8.9	24.2%	$256	0.98
Math Skills 9+	44.7%	$280	1.08

It might be argued that terminees with the lowest levels of educational attainment are the same as those with the lowest math proficiencies. To address this issue, Chart 4.3 displays the median weekly earnings of subgroups of Title II-A terminees categorized by both their years of schooling and their math skills at program entry. The chart shows that, within each group defined by years of schooling completed, weekly earnings were typically higher for those with stronger math proficiencies. In addition, within each group defined by math skills grade level, weekly earnings were higher for those who completed more years of education. Both schooling and math proficiencies affect the weekly earnings of employed Title II-A terminees. Those who completed 13 or more years of schooling and had math skills at or above the 9th grade earned nearly $300 per week, versus only $240 for those lacking a diploma and having math skills at or below grade 7.

Chart 4.3: Median Weekly Earnings of Employed Title II-A Terminees, by Educational Attainment/Math Skills Grade Level, 1996



The weekly earnings of JTPA Title II-A terminees also vary depending on the types of services that they received while in the program. Individuals receiving only occupational skills training, a group accounting for almost half of all terminees in 1996, had the highest median weekly earnings of any of the major training subgroups (Table 4.4). Terminees receiving only basic skills training and those in work experience only programs had the lowest median earnings. Individuals in the basic skills group, who comprised 7 percent of all terminees, had median weekly earnings of only $227, a figure that was $53 or almost 20 per-

cent shy of the weekly earnings of terminees receiving occupational skills training.

Table 4.4: Median Weekly Earnings of Employed JTPA Title II-A Terminees, by Type of Training Received, April 1, 1996 - June 30, 1997

	Percent of Terminees	Median Earnings	Relative to "All"
Total	100%	$260	1.00
Basic Skills Only	7.0%	$227	0.87
Occupational Skills Only	48.3%	$280	1.08
OJT Only	10.2%	$250	0.96
Work Experience Only	1.7%	$190	0.73
"Other" Only	4.2%	$247	0.95
Multiple Types of Training	20.9%	$260	1.00
No Training	7.8%	$250	0.96

Differences in the median weekly earnings of terminees were greatest across those subgroups of terminees categorized by a combination of selected human capital traits and service strategies. For example, employed terminees who entered the program with less than 12 years of schooling, who had math skills below the 7th grade level, and who went on to receive only basic skills training had median weekly earnings of only $210 at termination (Chart 4.4). Employed terminees with a high school diploma and math skills above the 9th grade level who received OJT had median weekly earnings of $260. The subgroup with the highest median weekly earnings was composed of individuals with 13 or more years of schooling and math skills above the 9th grade level who received occupational skills training. These individuals, accounting for only 8 percent of all terminees, had median weekly earnings of $320 in 1996.

Chart 4.4 Median Weekly Earnings of Employed Title II-A Terminees, by Educational Attainment/Math Skills Grade Level/Type of Service Received, 1996

<12 Yrs, Math <7, Basic skills only
$210
12 Yrs, Math <7, Basic skills only
$220
12 Yrs, Math <7, OJT only
$240
12 Yrs, Math 9+, OJT only
$260
12 Yrs, Math 9+, Occ. skills only
$280
13+ Yrs, Math 9+, Occ. skills only
$320
$160 $180 $200 $220 $240 $260 $280 $300 $320

Compared to findings for Title II-A terminees, demographic and socioeconomic differences in median weekly earnings were more pronounced among employed terminees from Title III programs. This result might have been expected, given that terminees from Title III programs come into the JTPA system with considerably more work experience than Title II-A terminees.[54] The amount of prior work experience of employees has consistently been shown to have a substantial impact on the earnings of individuals over their work lives. Since men typically have more work experience than women, whites have more experience than minorities, and older individuals have more work experience than young persons, the larger earnings differences apparent in the data for Title III terminees compared to those from Title II-A programs may reflect differences in the cumulative work experience of various subgroups of terminees.

Patterns in the median weekly earnings of employed Title III terminees across demographic and socioeconomic subgroups are presented in Table 4.5. The earnings patterns are familiar to keen observers of the U.S. economic landscape. Males, White non-Hispanics, older individuals (but not too old), those with the highest amount of formal schooling, and persons with higher math skills earned more than each of their

respective demographic counterparts. Among the educational subgroups, median weekly earnings were lowest for terminees who had not obtained a high school education. Their median weekly earnings ($280) were $120 or 30 percent lower than those of terminees who had completed some schooling beyond high school.

Table 4-5:
Median Weekly Earnings of Employed JTPA Title III Terminees, by Selected Characteristics, April 1, 1996 - June 30, 1997

	Percent of Total	Median Earnings	Earnings Relative to "All"
Total	100%	$340	1.00
Male	48.6%	$400	1.18
Female	51.4%	$300	0.88
White, non-Hispanic	69.2%	$360	1.06
Black, non-Hispanic	16.5%	$300	0.88
Hispanic	10.5%	$290	0.85
American Indian, Alaskan	0.8%	$340	1.00
Asian or Pacific Islander	3.0%	$390	1.15
Under 30	17.9%	$300	0.88
30-44	47.6%	$348	1.02
45-64	33.9%	$360	1.06
65 and Over	0.6%	$250	0.74
<12 Years Schooling	9.4%	$280	0.82
12 Years	50.6%	$320	0.94
13 or More Years	40.1%	$400	1.18
Math Skills <7	11.7%	$300	0.88
Math Skills 7-8.9	15.4%	$320	0.94
Math Skills 9+	50.6%	$372	1.09

Similar to our findings for JTPA Title II-A programs, Title III terminees who received only occupational skills training had the highest median earnings of any of the training subgroups (Table 4.6). The median earnings of the other training subgroups, including those receiving basic skills only, OJT only, a combination of services, and 'no training', were approximately $320 per week, a figure that was $40 or 11

percent less than the median weekly earnings of terminees who received occupational skills training.

Table 4.6: Median Weekly Earnings of Employed JTPA Title III Terminees, by Type of Training Received, April 1, 1996 - June 30, 1997

	Percent of Terminees	Median Earnings	Relative to "All"
Total	100%	$340	1.00
Basic Skills Only	4.6%	$320	0.941
Occupational Skills Only	44.8%	$360	1.059
OJT Only	4.0%	$320	0.941
Multiple Types of Training	7.5%	$320	0.941
No Training	39.0%	$324	0.953

JTPA Earnings by Family Size

The ability of employed JTPA terminees to achieve at least poverty level earnings is heavily dependent on the size of their families. For example, over 90 percent of employed terminees with no dependents from both Title II-A and Title III programs were able to earn enough to meet the poverty threshold (see Table 4.7). The poverty threshold for an unrelated individual (or a family of one) under the age of 65 was $8,163. Assuming that all employed terminees would be working for 52 weeks, this poverty income threshold translates to $157 per week. At 38 hours per week, approximately the mean number of hours worked per week, this adequacy standard requires an hourly wage of only $4.13, or $1.00 less than the prevailing federal minimum wage. The fact that almost 10 percent of Title II-A terminees and 7 percent of Title III terminees were unable to earn enough to meet this very limited income standard should be troubling. Part-time jobs are likely responsible for most of the gap. The fraction of employed JTPA terminees who were able to obtain annualized earnings above the poverty threshold fell considerably as the number of dependents rose. Among Title II-A terminees, the share who were able to secure annualized earnings above the official poverty threshold fell from 91 percent among those with no dependents, to 75 percent for those with one dependent, to 57 percent among those with two dependents, and to only 30 percent among those with three dependents.

Table 4.7 Percent Distribution and Fraction of Employed Title II-A and Title III Terminees with Annualized Earnings Above the Poverty Line, by Number of Dependents, PY96

	Title II-A		Title III	
	Percent of Total	Fraction with Adequate Earnings	Percent of Total	Fraction with Adequate Earnings
Total	100%	68%	100%	86%
No Dependents	37%	91%	59%	93%
One Dependent	22%	75%	18%	86%
Two Dependents	22%	57%	15%	78%
Three Dependents	12%	30%	6%	59%
Four Dependents	4%	14%	2%	41%
Five or More Dependents	2%	7%	1%	27%

Measuring the Adequacy of the Earnings of JTPA Terminees

But how do these JTPA Title II-A and Title III earnings compare with the earnings adequacy standards advocated by this monograph? Table 4.8 provides the poverty thresholds for 1996 which we have already characterized as seriously inadequate for providing even a minimum level of family support. The analysis which follows assesses the extent to which the placement wages of JTPA terminees exceed poverty levels as currently defined and approach the standards which we have set as representing family income adequacy. The SPIR data system does not include a variable capturing the specific number of persons in the household in which the participant resided; thus, we cannot directly measure family size. There is, however, a data item that is used to collect information on the number of dependents of each participant. We have used this variable as a proxy for family size. As an example, a terminee who indicated that he or she had two dependents is assumed to have been living in a family containing three persons. Also, the SPIR system does not collect information on the annual earnings of terminees. At the time of termination, information is collected only on the hourly wage and the number of hours worked per week. We have computed weekly earnings as the product of the hourly wage and the number of hours worked per week (for instance, $7 an hour for 40 hours per week would yield weekly earnings of $280). To arrive at annual earn-

ings, we have assumed that all employed terminees are able to obtain employment for 52 weeks during the year. Thus, in the preceding example, the terminee would have been assigned annualized earnings of $14,560 which is higher than the three-person poverty threshold, but lower than the four-person poverty threshold. Whether this individual will be classified as having adequate earnings will be determined by the number of dependents. If the terminee reported zero, one, or two dependents, then he or she will be classified as having adequate earnings. The existence of three or more dependents for the terminee will categorize him or her as having "inadequate" earnings.

Our estimates of the ability of JTPA programs to provide terminees with jobs that offer adequate earnings may be excessive for two main reasons. First, our estimates are based only on those individuals who were employed. Terminees who were not employed should obviously be classified as having inadequate earnings. Second, we are assuming that employed terminees will be working for all 52 weeks during the year. This will clearly not be the case for a subset of employed terminees, but only long-term followup data can help determine this. On the other hand, it might be argued that our weekly earnings estimates provide downward biased estimates of the share of terminees who will ultimately achieve adequate earnings. Our weekly earnings estimates are based on the earnings received on the jobs held by employed participants at time of termination. Our analysis of the 13 week followup data for Title II-A terminees has revealed modest gains in weekly earnings over the followup period, which are likely to be improved as terminees gain more work experience, receive OJT, and gain access to more full-time jobs.

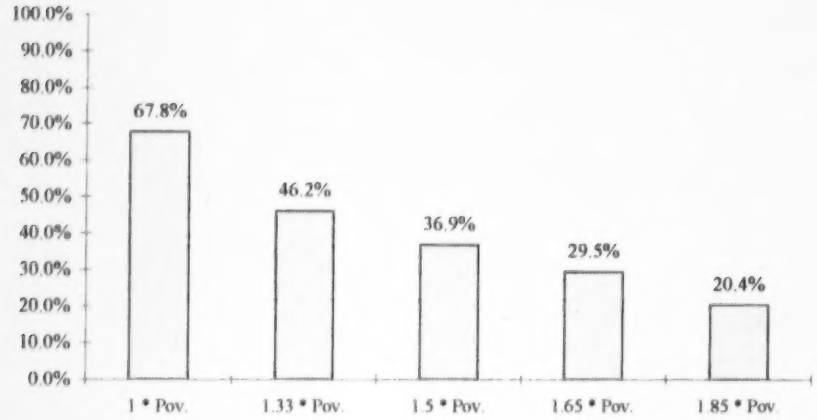
Table 4.8 1996 Poverty Thresholds, the Number and Percent Distribution of All Persons, and the Poverty Rate of Persons, by Type of Household and Size of Family

	Poverty Threshold	Number (000s)	Percent of Total	Poverty Rate
Total		266,793	100%	13.9%
Unrelated Individual				
Householder Under 65	$8,163	30,591	11%	22.2%
Householder 65 and Over	$7,525	10,709	4%	20.9%
Family Member				
Two Persons, Householder Under 65	$10,564	45,594	17%	11.2%
Two Persons, Householder 65 +	$9,491	19,393	7%	5.5%
Three	$12,516	51,393	19%	12.4%
Four	$16,036	58,659	22%	10.5%
Five	$18,952	30,894	12%	14.0%
Six	$21,389	11,811	4%	20.7%
Seven	$24,268	4,142	2%	29.8%
Eight	$27,091	1,880	1%	29.3%
Nine or More	$31,971	1,727	1%	46.5%

Source: U.S. Census Bureau, March 1997 Current Population Survey public use file, tabulations by Center for Labor Market Studies.

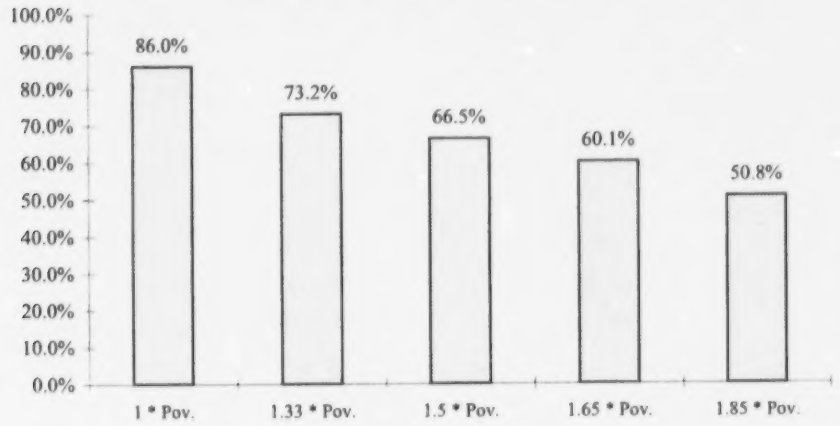
The estimated fractions of employed Title II-A terminees in PY96 with adequate earnings as reflected by selected multiples of the poverty line are portrayed graphically in Chart 4.5. Nationally, just over two-thirds of employed Title II-A terminees earned enough to raise their families above the official poverty line. When we raise the adequacy bar and calculate the fraction with annualized earnings greater than 1.33 times the poverty threshold, the share with adequate earnings falls to only 46 percent or less than half. The fraction of terminees with adequate earnings falls continuously as we raise the adequacy standard, declining to 37 percent when the standard is 1.5 times the poverty threshold, to 30 percent at a standard equal to 1.65 times the poverty threshold, and to only 20 percent when the adequacy standard is raised to 1.85 times the poverty threshold.

Chart 4.5 Fraction of Employed Title II-A Terminees with Adequate Earnings, by Adequacy Standard: PY 96



As previously noted, terminees from JTPA Title III programs have higher average hourly and weekly earnings than their Title II-A counterparts. Thus, we should expect that a higher fraction of Title III terminees would obtain earnings high enough to meet our adequacy standards. This expectation is confirmed in Chart 4.6. During PY96, 86 percent of employed Title III terminees earned enough to raise their families above the official poverty threshold. As we become more demanding in our choice of an adequacy standard, the fraction of employed terminees with adequate earnings falls. Approximately two-thirds of Title III terminees secured earnings that were sufficient to raise their families to an income standard equal to 1.5 times the poverty threshold, but only three out of five were able to meet the more rigorous income standard of 1.65 times the poverty threshold.

Chart 4.6: Fraction of Employed PY96 Title III Terminees with Adequate Earnings, by Adequacy Standard



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Chapter Five

The Adequacy of the Earnings of Demographic and State Subgroups of JTPA Terminees

In the previous chapter, we analyzed the findings of the PY96 national SPIR data base to identify the fraction of employed terminees from JTPA Title II-A and III programs who were able to achieve earnings above alternative income adequacy thresholds. This chapter is devoted to a similar analysis of findings for selected demographic and socioeconomic subgroups of terminees from Title II-A and III programs and for terminees within each state. The concluding section of this chapter will be devoted to a series of recommendations for improving the ability of state and local work force development agencies to track the longer-term earnings of JTPA terminees.

Earnings Adequacy of Title II-A Subgroups

As was the case with median weekly earnings, the extent to which employed JTPA Title II-A terminees were able to earn enough to exceed the poverty thresholds for families of their given size varied across demographic, socioeconomic, and training subgroups of the JPTA population. While there were few substantial differences across race/ethnic or age subgroups of employed terminees, there were larger differences across gender and human capital subgroups (Table 5.1). Males were considerably more likely than females to achieve annualized earnings above the poverty line (84 percent versus 59 percent). Fewer than half of the terminees who received only work experience, a training subgroup accounting for only 2 percent of all terminees, were able to achieve annualized earnings above the poverty line, and only 59 percent of employed terminees who received only basic skills training were able

to achieve earnings above the poverty threshold. For the other major training subgroups, between 64 and 70 percent of terminees were able to earn enough to raise their families' incomes above the official poverty line.

There were fairly large differences in the ability of employed terminees across the human capital subgroups to earn an income high enough to avoid poverty. Fewer than 60 percent of those terminees who had not obtained a high school diploma were able to meet or exceed the poverty threshold, compared to 66 percent of those who had obtained a high school diploma, and 76 percent of those who had completed some schooling at the post-secondary level. Similarly, the ability to obtain weekly earnings high enough to avoid poverty increased continuously as math proficiencies rose, from 62 percent among those with math skills below the 7th grade level up to 70 percent among those who had math skills above the 9th grade level.

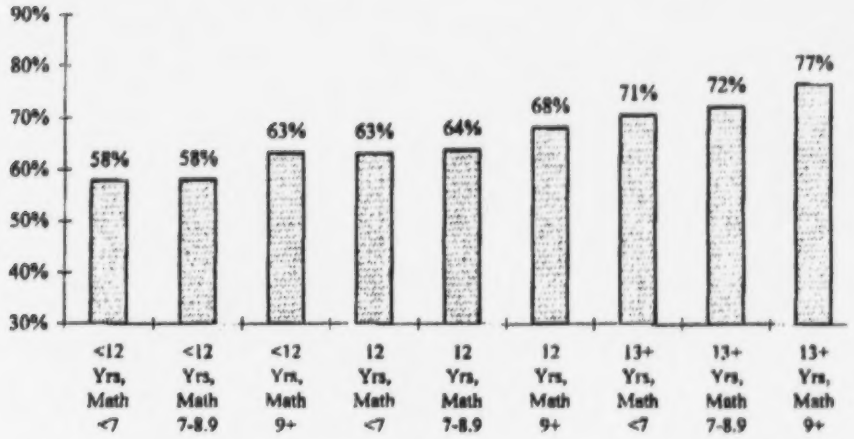
Table 5.1: Percent Distribution and Fraction of Employed Title II-A Terminees with Annualized Earnings Above the Poverty Line, by Selected Characteristics, PY96

	Percent of Total	Earnings Above Poverty Line
Total	100%	67%
Male	34%	84%
Female	66%	59%
White, non-Hispanic	48%	69%
Black, non-Hispanic	32%	66%
Hispanic	16%	62%
American Indian, Alaskan	1%	69%
Asian or Pacific Islander	3%	76%
Under 30	42%	66%
30-44	47%	65%
45-64	11%	79%
65 and Over	0%	63%
<12 Years Schooling	19%	59%
12 Years	58%	66%
13 or More Years	23%	76%
Math Skills <7	19%	62%
Math Skills 7-8.9	24%	64%
Math Skills 9+	45%	70%
Basic Skills Only	7%	59%
Occupational Skills Only	48%	70%
OJT Only	10%	70%
Work Experience Only	2%	47%
"Other" Only	4%	68%
Multiple Types of Training	21%	64%
No Training	8%	67%

Combining the two human capital characteristics of educational attainment and math skills illustrates the important influence of human capital traits on the ability of terminees to secure earnings that were high enough to avoid poverty. Nearly 20 percentage points separated the ability of the low and high human capital subgroups to earn enough to avoid poverty. Only 58 percent of employed terminees who had not

completed high school and who had math skills below the 9th grade level were able to earn enough to raise their families out of poverty, compared to 68 percent of those with 12 years of schooling and math skills above the 9th grade level, and 77 percent of terminees who completed 13 or more years of schooling and who possessed math skills above the 9th grade level (Chart 5.1).

Chart 5.1: Fraction of Employed Title II-A Terminees with Earnings Above the Poverty Line, by Educational Attainment/Math Skills Grade Level, 1996



Annualized Earnings of Title III Terminees

The ability of Title III program terminees to obtain earnings high enough to exceed the official poverty thresholds also varied considerably across subgroups of the terminee population. Female terminees, Blacks and Hispanics, and younger terminees were less likely than each of their respective demographic counterparts to secure annualized earnings above the poverty line (Table 5.2). The familiar patterns across human capital subgroups also are apparent in Title III programs. Only 75 percent of persons who had not completed high school were able to meet or exceed the poverty threshold, compared to 84 percent of high school graduates and 90 percent of terminees who completed 13 or more years of schooling. Similarly, 83 percent of terminees with the lowest math skills were able to earn the poverty threshold, compared to 89 percent of terminees with the highest math skills.

Table 5.2: Percent Distribution and Fraction of Employed Title III Terminees with Annualized Earnings Above the Poverty Line, by Selected Characteristics, PY96

	Percent of Total	Fraction with Adequate Earnings
Total	100%	85%
Male	48.6%	90%
Female	51.4%	81%
White, non-Hispanic	69.2%	88%
Black, non-Hispanic	16.5%	81%
Hispanic	10.5%	75%
American Indian, Alaskan	0.8%	87%
Asian or Pacific Islander	3.0%	88%
Under 30	17.9%	82%
30-44	47.6%	83%
45-64	33.9%	90%
65 and Over	0.6%	77%
<12 Years Schooling	9.4%	75%
12 Years	50.6%	84%
13 or More Years	40.1%	90%
Math Skills <7	11.7%	83%
Math Skills 7-8.9	15.4%	85%
Math Skills 9+	50.6%	89%
Basic Skills Only	4.6%	84%
Occupational Skills Only	44.8%	88%
OJT Only	4.0%	88%
Multiple Types of Training	7.5%	86%
No Training	39.0%	82%

State Differences in JTPA Earnings Adequacy

Table 5.3 presents evidence on the fraction of employed JTPA Title II A terminees in each state who were able to obtain earnings at or above the poverty line and 165% of the poverty threshold. Differences in outcomes across states were quite large in a number of cases. There was a 30 percentage point difference separating the state with the highest fraction of employed terminees with annualized earnings above the poverty line and the state with the lowest fraction of terminees with earnings above the poverty line (82 percent of the terminees in Alaska compared to 52 percent of those in West Virginia). Many of the states with high fractions of terminees who were able to obtain above poverty earnings were located in the Pacific and Northeast regions. California, Washington, and Alaska in the Pacific region, New York and New Jersey in the Middle Atlantic region, and Massachusetts and New Hampshire in New England were among the ten highest performing states. Many of the states with the lowest fractions of terminees who were able to secure above poverty earnings were in the South, including Virginia and West Virginia, Kentucky, South Carolina and Arkansas. The Northeast region also contained some underachievers, however, including the states of Pennsylvania and Rhode Island.

Table 5.3: Percent of Employed JTPA Title II-A Terminees with Annualized Earnings at or Above the Poverty Line and 1.65 Times the Poverty Threshold, by State

	Number of Terminees	Poverty Threshold Percent	Rank	1.65 * Poverty Threshold Percent	Rank
U.S. Total	126,754	67.8%		29.5%	
Alaska	311	82.0%	1	54.3%	1
Wash., D.C.	488	80.1%	2	45.7%	2
New York	8,903	77.9%	3	40.5%	4
New Jersey	3,638	77.2%	4	41.9%	3
Minnesota	2,317	76.6%	5	38.0%	5
Indiana	2,232	76.3%	6	36.6%	7
California	17,424	75.4%	7	34.4%	9
Massachusetts	2,848	75.0%	8	36.8%	6
New Hampshire	347	74.9%	9	31.4%	15

continued next page

	Number of Terminees	Poverty Threshold Percent	Rank	1.65 * Poverty Threshold Percent	Rank
Washington	2,943	74.1%	10	34.3%	10
Illinois	5,080	70.8%	11	32.9%	12
Michigan	5,741	70.1%	12	30.6%	17
Texas	8,557	69.4%	13	33.1%	11
Maryland	2,517	69.1%	14	27.1%	27
Nebraska	377	69.0%	15	32.1%	13
Connecticut	865	68.9%	16	34.7%	8
N. Dakota	377	68.7%	18	24.1%	35
Nevada	699	68.7%	19	25.8%	28
Oregon	1,800	68.7%	17	31.0%	16
Colorado	1,840	67.9%	20	23.5%	36
Oklahoma	1,161	67.7%	21	28.8%	21
Florida	5,807	67.3%	22	27.2%	26
Ohio	3,807	67.2%	24	30.0%	18
Montana	348	67.2%	23	24.7%	33
Iowa	572	66.8%	26	28.7%	22
Kansas	865	66.8%	25	28.4%	23
Vermont	409	66.5%	27	29.6%	19
Georgia	2,374	65.7%	28	21.3%	42
Idaho	590	65.6%	29	28.8%	20
Hawaii	517	65.6%	30	31.5%	14
Missouri	2,019	64.9%	32	24.3%	34
N. Carolina	2,820	64.9%	31	22.2%	38
Utah	455	64.8%	33	27.5%	25
Mississippi	2,596	63.6%	34	21.3%	41
Delaware	466	63.3%	35	25.1%	30
Maine	879	63.1%	36	24.9%	31
Wisconsin	2,510	62.5%	37	24.8%	32
Arizona	1,771	60.1%	38	21.0%	43
Louisiana	2,926	58.4%	39	27.8%	24
Tennessee	1,865	58.0%	40	19.3%	49
Arkansas	1,043	57.6%	41	21.8%	39
New Mexico	662	57.3%	42	19.9%	46
Rhode Island	404	57.2%	43	19.8%	47
S. Dakota	873	57.2%	44	20.0%	44
S. Carolina	2,027	56.7%	45	21.6%	40
Wyoming	363	56.5%	46	25.6%	29
Virginia	3,359	55.7%	47	19.4%	48
Pennsylvania	9,425	55.5%	48	19.2%	50
Alabama	1,987	55.3%	49	22.9%	37
Kentucky	1,496	54.8%	50	20.0%	45
W. Virginia	1,054	51.8%	51	16.4%	51

Findings in Table 5.4 present similar findings for JTPA Title III programs on the fraction of employed terminees in each state who were able to secure annualized earnings at or above the poverty line and 165 percent of the poverty line during PY 1996. Many findings were 'expected'; however, there were a few anomalies. Six of the ten states with the highest fraction of Title II-A terminees who were able to obtain annualized earnings above the poverty line were also found in the top ten performing states for Title III programs. Similarly, four of the ten lowest performing states for Title II-A programs were also among the ten lowest for Title III programs. The lowest-performing states were again concentrated in the South.

There were, however, some anomalous results. For instance, while New Jersey ranked fourth highest in the nation in terms of the fraction of Title II-A terminees who had annualized earnings above the poverty line, it ranked dead last in the fraction of Title III terminees who were able to do so.[55] Conversely, Tennessee ranked only 40th highest among the states in terms of the ability of its Title II-A terminees to achieve poverty earnings, but ranked 2nd highest for Title III terminees. When the standard is raised to 1.65 times the poverty line, Tennessee's rank falls from 2nd to 17th. Title III programs in Virginia also performed quite well in achieving adequate earnings for its terminees, ranking 15th highest, compared to only 47th highest for terminees from its Title II-A programs.

Table 5.4: Percent of Employed JTPA Title III Terminees with Annualized Earnings at or Above the Poverty Line and 165 Percent of the Poverty Threshold, by State

	Number of Terminees	Poverty Threshold Percent	Rank	1.65 * Above Poverty Threshold Percent	Rank
U.S. Total	247,139	86.0%		60.1%	
District of Columbia	265	97.4%	1	77.0%	2
Tennessee	2,811	94.6%	2	65.2%	17
Connecticut	3,656	94.3%	3	78.6%	1
Washington	7,049	94.2%	4	75.7%	3
Massachusetts	7,804	94.1%	5	75.6%	4
Indiana	4,262	93.2%	6	69.1%	8
Colorado	5,301	92.6%	8	72.4%	6
Alaska	418	92.6%	7	74.4%	5

	Number of Terminees	Poverty Threshold Percent	Rank	1.65 * Above Poverty Threshold Percent	Rank
Minnesota	2,698	91.8%	9	71.0%	7
Ohio	7,383	91.5%	10	65.4%	14
New York	15,756	91.4%	11	69.0%	9
New Hampshire	661	91.2%	12	65.5%	13
Maryland	6,366	91.0%	13	66.4%	11
Nevada	1,347	91.0%	14	65.4%	15
Virginia	5,100	90.5%	15	65.2%	16
Arizona	4,274	90.5%	16	66.1%	12
California	31,595	89.9%	17	67.6%	10
Montana	1,005	89.6%	19	64.6%	19
Oregon	3,822	89.6%	18	64.7%	18
Pennsylvania	13,448	89.3%	20	63.1%	21
Illinois	13,558	89.2%	21	63.6%	20
Wisconsin	2,837	88.4%	22	58.9%	24
Utah	910	87.8%	23	61.2%	23
Texas	14,339	87.3%	24	62.2%	22
Rhode Island	1,703	86.1%	27	55.5%	26
Missouri	3,215	86.1%	25	51.9%	30
Florida	9,779	86.1%	26	55.0%	27
Michigan	7,220	86.0%	29	56.7%	25
N. Carolina	3,166	86.0%	28	53.4%	28
Georgia	10,808	85.9%	30	52.5%	29
Maine	2,027	85.4%	32	49.0%	37
New Mexico	1,092	85.4%	31	51.2%	32
Kentucky	2,757	84.8%	33	49.0%	36
Idaho	1,030	84.5%	34	50.9%	33
Kansas	1,331	83.3%	35	51.4%	31
Wyoming	210	81.9%	36	46.7%	41
Hawaii	881	81.7%	37	50.7%	34
Delaware	405	81.5%	38	49.4%	35
Iowa	2,130	80.8%	39	46.6%	42
Nebraska	382	80.6%	40	48.4%	38
Oklahoma	2,837	78.6%	41	47.2%	40
S. Dakota	413	78.0%	42	34.9%	50
Louisiana	3,835	77.9%	43	44.2%	45
Vermont	379	77.6%	44	45.1%	44
S. Carolina	6,429	77.5%	45	38.9%	46
N. Dakota	419	77.1%	46	37.5%	47
W. Virginia	1,640	75.4%	47	47.5%	39
Arkansas	2,420	74.7%	48	36.1%	48
Mississippi	4,383	74.4%	49	34.1%	51
Alabama	3,099	72.5%	50	35.6%	49
New Jersey	16,484	59.5%	51	46.0%	43

The above findings on state differences in the ability of JTPA pro-

gram terminees to obtain earnings sufficient to meet or exceed various poverty thresholds are 'raw' or unadjusted differences. That is, we have not adjusted the findings to account for differences in participant characteristics, in the mix of services provided, or for local economic conditions or local wage structures. Would the fairly large differences across states in the fractions of terminees who were able to obtain above poverty earnings narrow if we controlled for differences in terminee characteristics, service mix, and local economic conditions? More elaborate multivariate statistical techniques similar to those used by ETA to develop "adjusted" performance standards for individual SDA's would be required to answer this important question; thus, we leave this as a topic for future research.

Adjusting Earnings Thresholds for Differences in the Cost of Living Across States

The above estimates of the fractions of employed JTPA Title II-A and Title III terminees in each state with annualized earnings above each of the income adequacy thresholds did not adjust for any differences in the cost of living across states. Earlier, we had noted the existence of fairly large differences in the cost of rental housing across local communities throughout the nation that should be taken into account in establishing poverty income thresholds for local areas and states. A methodology initially developed by the National Research Council for converting these rental cost differences into a set of cost-of-housing adjusted poverty lines was adopted by the authors in developing a set of state cost of living indices. The specific methodology used by the authors to produce these cost of living estimates is presented in Appendix B of this monograph. The values of these cost of living indices for individual states are presented in Table 5.5. The values of these indices range from lows of 84.2 in Mississippi and 86.1 in North and South Dakota to highs of 117.2 in Massachusetts, 120.3 in New Jersey and 125.0 in Alaska.[56]

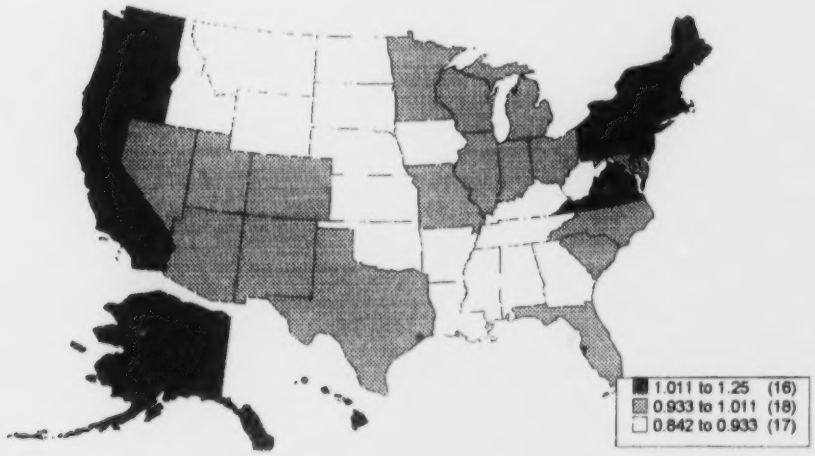
The map in Figure I shows quite clearly the geographic pattern of differences in the estimated cost of living index across states. The value of the cost of living index is highest on the West coast and in the Northeast. The cost of living is lowest in a great swath of states stretching from Idaho in the Northwest through the Plains to Georgia in the

Southeast. In between the high cost of living on the West coast and the Northeast region and the low cost of living in the nation's midsection are three intermediate cost of living areas. The first is comprised of states in the lower Rocky Mountains stretching east to Texas. The second contains states in the North Central region of the country. The third is comprised of most of the states on the eastern seaboard south of New Jersey.

Table 5.5: Values of the Cost of Living Adjustment Index by State

Mississippi	84.2	Colorado	97.8
N. Dakota	86.1	N. Carolina	98.3
S. Dakota	86.1	Nevada	98.3
Kentucky	86.9	Arizona	98.9
Kansas	87.9	Missouri	99.9
Arkansas	88.2	Maryland	100.3
Alabama	88.4	Florida	100.4
Montana	88.8	Michigan	100.4
Wyoming	88.8	Illinois	101.0
Iowa	88.8	Virginia	101.3
Nebraska	90.2	Oregon	104.8
Oklahoma	90.2	Pennsylvania	107.2
W. Virginia	90.9	Washington	109.1
Tennessee	91.3	New York	110.4
Idaho	91.7	District of Columbia	111.9
Louisiana	91.8	Maine	112.8
Georgia	91.9	New Hampshire	112.8
Indiana	93.3	Vermont	112.8
Texas	93.5	Connecticut	113.2
Delaware	94.0	Rhode Island	113.9
New Mexico	94.3	California	114.6
Wisconsin	94.5	Hawaii	115.0
Minnesota	95.7	Massachusetts	117.2
S. Carolina	97.0	New Jersey	120.3
Ohio	97.2	Alaska	125.0
Utah	97.4		

Figure 5.1: Cost-of-Living Adjustment Index, by State



The cost of living indices for each state have been used to produce new cost of living adjusted poverty lines for each state, including values for each of our alternative income adequacy standards. The annualized earnings of employed terminees in each state were then compared to these new cost of living adjusted poverty lines to determine whether they would be able to achieve an annual income above the poverty threshold for a family of their given size.

Table 5.6 presents results for terminees from Title II-A programs, using the official poverty threshold as the standard for adequate earnings. More detailed sets of findings, including rankings at 133%, 150% and 165% of the poverty threshold, have been provided in Appendix D (for Title II-A programs) and Appendix E (Title III programs). As might be expected, given our findings concerning geographic patterns in the cost of living, some of the states that performed well before adjusting for differences in the cost of living did not perform as well after the adjustment. Seven of the ten highest-performing states did not make the top ten after adjusting for differences in the cost of living, including

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many states in the Pacific and the Northeast regions. Terminees in the states of Alaska, California and Washington in the Pacific region saw their relative ranking decline considerably after adjusting for the higher cost of living in these states. In the Northeast region, New Jersey, New York, Massachusetts, and New Hampshire each experienced a fairly sharp decline in their ranking after adjusting for the higher cost of living. Conversely, many states that were in the middle of the distribution before adjusting for differences in the cost of living moved to the top after adjusting for cost of living differences. Six states moved into the top ten rankings from former positions ranging from 15th to 34th, including North Dakota, Kansas, Nebraska, Montana, Oklahoma, and Mississippi.

Table 5.6: Percent of Title II-A Terminees with Annualized Earnings Above the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Before Adjustment Percent	Before Adjustment Rank	After Adjustment Percent	After Adjustment Rank
Total	126,754	67.8%		67.6%	
Alaska	311	82.0%	1	71.1%	16
Wash., D.C.	488	80.1%	2	76.2%	6
New York	8,903	77.9%	3	72.1%	12
New Jersey	3,638	77.2%	4	66.4%	34
Minnesota	2,317	76.6%	5	79.7%	2
Indiana	2,232	76.3%	6	80.9%	1
California	17,424	75.4%	7	68.2%	27
Massachusetts	2,848	75.0%	8	65.4%	39
New Hampshire	347	74.9%	9	66.3%	35
Washington	2,943	74.1%	10	68.3%	26
Illinois	5,080	70.8%	11	70.5%	18
Michigan	5,741	70.1%	12	69.8%	20
Texas	8,557	69.4%	13	74.2%	11
Maryland	2,517	69.1%	14	69.1%	24
Nebraska	377	69.0%	15	76.9%	5
Connecticut	865	68.9%	16	59.8%	46
Oregon	1,800	68.7%	17	65.9%	36
N. Dakota	377	68.7%	18	79.0%	3
Nevada	699	68.7%	19	71.2%	15
Colorado	1,840	67.9%	20	71.4%	14
Oklahoma	1,161	67.7%	21	75.1%	8
Florida	5,807	67.3%	22	67.1%	31
Montana	348	67.2%	23	75.9%	7

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	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Ohio	3,807	67.2%	24	70.2%	19
Kansas	865	66.8%	25	77.0%	4
Iowa	572	66.8%	26	74.5%	10
Vermont	409	66.5%	27	60.1%	45
Georgia	2,374	65.7%	28	71.9%	13
Idaho	590	65.6%	29	69.7%	21
Hawaii	517	65.6%	30	56.3%	47
N. Carolina	2,820	64.9%	31	68.5%	25
Missouri	2,019	64.9%	32	64.9%	40
Utah	455	64.8%	33	66.8%	33
Mississippi	2,596	63.6%	34	75.0%	9
Delaware	466	63.3%	35	70.6%	17
Maine	879	63.1%	36	54.6%	49
Wisconsin	2,510	62.5%	37	67.1%	30
Arizona	1,771	60.1%	38	62.0%	42
Louisiana	2,926	58.4%	39	65.7%	38
Tennessee	1,865	58.0%	40	67.9%	28
Arkansas	1,043	57.6%	41	69.1%	23
New Mexico	662	57.3%	42	63.1%	41
Rhode Island	404	57.2%	43	45.3%	51
S. Dakota	873	57.2%	44	69.2%	22
S. Carolina	2,027	56.7%	45	61.4%	43
Wyoming	363	56.5%	46	67.2%	29
Virginia	3,359	55.7%	47	55.1%	48
Pennsylvania	9,425	55.5%	48	51.2%	50
Alabama	1,987	55.3%	49	67.0%	32
Kentucky	1,496	54.8%	50	65.9%	37
W. Virginia	1,054	51.8%	51	60.4%	44

Future Research Activities

The above methods for assessing the adequacy of the earnings of JTPA terminees can be supplemented and enriched in a number of ways. First, the weekly earnings of terminees at the time of the thirteen week followup surveys can be used to estimate the annual earnings that would prevail if they were employed on a full-year basis. The current SPIR data base contains followup data on the employment status of a large sample of terminees from JTPA Title II-A and Title III programs as well as their hours of work, hourly wages, and weekly earnings. These weekly earnings estimates could be used to generate values of the annualized earnings of the employed followup sample, which could

then serve as key data inputs to determine whether they were able to achieve the desired earnings adequacy thresholds. The followup data do, however, suffer from several shortcomings. They are not available for the entire followup sample due to attrition in the followup survey. During PY96, the followup interview completion rate for terminees from Title II-A programs was approximately 75 percent for the nation as a whole, but the contact rates varied considerably by state. The 13 week followup data also can only be used to estimate weekly earnings at a point in time rather than over the entire 13 week followup period.

Second, there is a clear need to obtain followup earnings data for lengthier periods of time to track long-term changes in the post-program earnings of participants in education and training programs.[57] As noted earlier, the recently enacted workforce development legislation (the Workforce Investment Act of 1998) calls upon states to track the employment and earnings experiences of terminees over the first twelve months of the post-program period, using the UI-based wage records of workers covered by the federal and state unemployment insurance laws. To obtain more complete coverage of the earnings experiences of terminees, states will have to share information with each other on the earnings of workers employed outside their state of residence, and other followup information will need to be collected to estimate the earnings of those persons employed in jobs not covered by the unemployment insurance system, including the self-employed and workers in contract labor positions. Terminees from Title III dislocated worker training programs are more likely than their counterparts from Title II-A programs to be employed outside the state, to be self-employed, and to hold jobs not covered by the UI laws.

Third, the earnings of employed terminees in each local area should be adjusted separately for differences in the estimated cost of living. For simplicity in calculations, we used state cost of living adjustment factors to convert the earnings of all terminees in the same state into their cost-of-living equivalents. Since the cost of living tends to vary across local areas in the same state, it would be ideal to adjust earnings for local differences in the cost of living. The cost of housing adjusted local poverty lines of the National Research Council can be updated with rental data from the U.S. Department of Housing and Urban Development to perform this analysis, or the Employment and Training

Administration's updated BLS lower living income standards can be used to adjust for the local cost of living. The geographic boundaries of existing JTPA service delivery areas would need to be matched to the boundaries of the areas for which cost of living data are available. Each state would have the discretion to choose which cost of living adjustment factor to apply to each substate area.

Fourth, there is a need for both the U.S. Department of Labor and individual states to track the future performance of alternative types of training interventions in generating annual earnings for participants that will enable them to achieve the desired income adequacy thresholds. Future improvements in performance will likely entail a number of important shifts in the occupational mix of training programs and the length and intensity of training, especially for the more economically disadvantaged trainees. There will be important cost implications from these changes in the mix of training services that will have to be balanced against the higher levels of earnings from longer term and more highly skilled training. Careful benefit-cost calculations will be needed to judge the worthiness of these more costly investments. We cannot, however, expect to improve the ability of future job training participants to achieve the desired earnings adequacy standards in the absence of greater education and training investments. One cannot ignore the fundamental laws of human capital theory. One can only hope to reap in proportion to the effort with which one has sown. The unrealistic expectations that frequently accompanied hopes for past training programs under both the CETA and JTPA legislation served as an obstacle to needed reforms if the goal of income adequacy was to be achieved for a greater number of participants.

The Final Word

But as important as these recommendations for future research may be, the overriding message and appeal of this document is for the Office of Management and Budget or the U.S. Congress, by January 2000, to take the actions necessary to give meaning to anti-poverty policy in the United States by raising the official poverty threshold to and keeping it at the 50 percent of the pre-tax median family income from whence it began over one-third of a century ago.

Appendix A:

The Assignment of Family Poverty Thresholds to Individual Metropolitan and Non-Metropolitan Areas Across the U.S. in 1995

As noted in the text of this monograph, the existing poverty income thresholds of the federal government do not vary across regions, states, or substate areas. A family of a given size and age composition is assigned the same poverty income threshold regardless of where it lives. To adjust these poverty income thresholds for variations in the cost of living across geographic areas, one must obtain estimates of the relative costs in each area of achieving a given consumption bundle of goods and services including rental shelter that will represent the minimum consumption level needed to avoid poverty.

The recent National Research Council study on poverty concepts and measures provided estimates of cost of living differences across metropolitan and non-metropolitan areas in the United States during 1990 based solely on variations in the cost of purchasing rental shelter with specified characteristics for a four person family.[58] The consumption of shelter and utilities was assigned a combined expenditure weight of 44% in the consumption bundle representing the poverty line. These estimates of cost-of-housing differences across metropolitan areas and non-metropolitan areas can be used to adjust the existing poverty income thresholds for substate areas in the United States. The cost-of-housing adjustment factor is expressed as a percentage above or below the national poverty threshold. These adjustment factors were provided in the National Research Council study (Measuring Poverty) for each of the nine geographic divisions across the United States and for met-

ropolitan areas in five different population size classes and non-metropolitan areas within each division. The following procedures were used by the authors of this study to make adjustments in the official poverty thresholds for individual metropolitan areas and for non-metropolitan areas within each state as suggested by the National Research Council.

Our estimates of the incidence of poverty problems among families in each state across the country in 1995, 1996, and 1997 are based on the March Current Population Surveys. These March CPS surveys contain a supplement that collects data on the earnings and incomes of all household member ages 15 and older in the previous calendar year. The annual money incomes from a diverse array of sources for each family member are summed to generate an estimate of a family's combined money income. This money income figure then is compared to the poverty income threshold for a family of given size and composition to determine whether it is poor.

Using the March 1996 Current Population Survey (CPS) public use tape, we identified the residence of each sample member at the time of the survey. Of the 264,314,000 weighted person records on the March 1996 CPS tape, 204,721,000 or 77.5 percent of the U.S. population were identified as living within a specific Metropolitan Statistical Area (MSA). (See Table A-1). Based on the March 1996 CPS estimate of the resident population in each MSA, each identified metropolitan area was classified into the region and population size category presented in the National Research Council study. Each MSA was assigned the poverty income threshold adjustment factor recommended by the NRC study, and the official poverty threshold for each family in the MSA was multiplied by the assigned poverty threshold adjustment factor. For example, the Atlanta, Georgia MSA had a population of 3,677,000 based on findings of the March 1996 CPS. According to the NRC study, any metropolitan area with a population of 2.5 million or more in the South Atlantic region, which contains the state of Georgia, was assigned a cost of living index 11.9 percent higher than the national level. Hence, the poverty threshold adjustment factor for the Atlanta MSA was 1.119. The existing family poverty thresholds were then multiplied by 1.119 to estimate the poverty threshold applicable to families in the Atlanta MSA. This same procedure was applied to the 77.5 percent of all person records in the March 1996 CPS file for which the MSA of residence

was identified.

Table A-1
The Distribution of the U.S. Population by Metropolitan Area and Non-Metropolitan Area in the March 1996 Current Population Survey (CPS)

Geographic Area	Number of Persons	Percent of Population
Number of Persons in Identifiable Metropolitan Areas	204,721,000	77.5
Number of Persons in Non-Metropolitan Areas	51,336,000	19.4
Number of Persons in a Metropolitan Area not Specifically Identified on the Tape	1,278,000	.5
Number of Persons not identified as Living in either Metropolitan Areas or Non-Metropolitan Areas	6,979,000	2.6
Total Number of Persons	264,314,000	100.0

Source: March 1996 CPS survey, tabulations by Center for Labor Market Studies.

Another 51.3 million persons were identified as living in a non-metropolitan area at the time of the March 1996 CPS survey. These identified non-metropolitan areas were assigned the appropriate non-metropolitan area adjustment factor for the region in which they were located as recommended by the NRC study. For example, a resident of a non-metropolitan area in the East North Central region, which includes the states of Illinois, Indiana, Michigan, Ohio, and Wisconsin, was assigned a poverty line adjustment factor of 0.896. In other words, persons living in non-metropolitan areas within this region were assigned a cost of living adjustment factor 10.4 percent below the national average. Hence, the official poverty thresholds of families in non-metropolitan areas of the East North Central region are multiplied by 0.896 to estimate cost-of-housing adjusted poverty thresholds for families in those areas.

All other persons were either living in an MSA which was not identified by the U.S. Census Bureau on the March CPS tape to preserve confidentiality or were assigned to the residence category "not identified". While we know the states of residence of the members of the

above two groups, we cannot tell whether the last group resided in either a metropolitan or non-metropolitan area. The families in both the non-identified metropolitan areas and in non-identified areas were assigned the most conservative adjustment factors for their region. Thus, for example, a family residing in a non-identified metropolitan area in Massachusetts was assigned the adjustment factor for the smallest metropolitan area; i.e., one with a population under 250,000 in New England. Such a family would have been assigned an adjustment factor of 1.128, or 12.8 percent above the national poverty threshold. Similarly, those cases within a non-identified location were assigned the smallest adjustment factor as given by either the non-metropolitan area or the smallest metropolitan area in each region. For example, suppose that a sample family in North Carolina was not assigned either a metropolitan code or a non-metropolitan area code on the CPS tape. A family living in North Carolina resides in the South Atlantic region. The poverty line adjustment factor for non-metropolitan areas and small metropolitan areas in the South Atlantic region was 89.9. Thus, the official poverty line for this family was multiplied by .899.

By following the above procedures, we were able to assign a new cost-of-housing adjusted poverty threshold to all of the families appearing on the March 1996 CPS tape. These new cost-of-living adjusted poverty lines were used to re-estimate family poverty rates by state and by region across the United States in 1995.

Appendix B:

Constructing Estimates of Cost-of-Living Adjusted Family Poverty Lines for States Based on Rental Cost Differences Across Metropolitan and Non-Metropolitan Areas Within States in 1990

The federal government's poverty income thresholds do not adjust for any differences in the cost of living across states or local areas. This absence of any variation in the official poverty lines across local areas or states constitutes a major shortcoming of the existing official poverty statistics. Unfortunately, there are no official cost of living data for states or metropolitan areas throughout the nation. While the U.S. Bureau of Labor Statistics does generate estimates of the CPI-U Index for a limited number of major metropolitan areas, these data by themselves cannot be used to compare the cost of living across these metropolitan areas.

There are a number of different methodologies that can be used to construct estimates of a cost-of-living index for individual metropolitan areas or states in the U.S. One of the key design issues that must be addressed by all architects of local area or state cost-of-living indices is the appropriate reference group for the study. For what type of family or family budget standard do we wish to construct estimates of comparative living costs? Should this standard be a poverty budget, the average household's consumption budget, a middle class consumption budget, a high standard of living budget, a family budget for blue collar workers, or a family budget for professionals or managers, such as the ACCRA cost of living index?[59] Since the level of expenditures and

composition of the goods, services, and shelter items comprising the budget will vary by the type of budget standard chosen, a state's or a local area's comparative cost-of-living index also can be expected to vary by type of budget.

In the main body of the report, we adopted a specific methodology and the rental housing data base from the 1990 Census of Population and Housing to construct a cost of living index for states and selected large metropolitan areas across the nation. Our methodology involves developing a cost-of-living index for each state based on the cost of achieving a poverty income standard of living for a family in each state in 1990. The methodology yields estimates of cost-of-living adjusted poverty lines for each metropolitan area and for non-metropolitan areas within each state as of 1990. The cost-of-living adjusted poverty lines for each substate area are weighted by their respective share of the state's population in 1995 to determine a cost-of-living index for each state. The reference budget for this cost-of-living study is the dollar amount of expenditures on the consumption of goods, services, and rental shelter needed by a family of four to avoid being poor in 1990.

Our methodology for generating this state cost-of-living index borrows heavily from earlier work by the National Research Council's Panel on Poverty and Family Assistance. The recent National Research Council study on poverty concepts and measures (Measuring Poverty) provided estimates of cost of living differences across metropolitan and non-metropolitan areas in the United States in 1990, based solely on variations in the cost of purchasing rental shelter with specified characteristics for a four person family.[60] The cost of purchasing this rental shelter and utilities was assigned a weight of 44% in the consumption bundle representing the poverty standard of living. These estimates of local area cost-of-housing differences then were used to adjust the existing poverty income thresholds for substate areas in the United States. The cost-of-housing adjustment factor was expressed as a percentage above or below the national poverty threshold. These adjustment factors were provided in the National Research Council's study (*Measuring Poverty*) for each of the nine geographic divisions across the United States and for non-metropolitan areas and metropolitan areas in five different population size classes within each division.

The range in the values of these cost-of-housing adjusted poverty thresholds was quite wide. The "new poverty" thresholds measured as a percent of the existing poverty line for a family of 4 ranged from 83% for families living in non-metropolitan areas and small metropolitan areas in the East South Central region (Kentucky, Tennessee, Alabama, Mississippi) to highs of 121% to 122% for families residing in the Boston metropolitan area and the San Diego and San Jose metropolitan areas of California (Table B-1).

Table B-1:
Geographic Variations in the Poverty Line Adjusted for Regional and Local Differences in Rental Costs
(Numbers in Percent, U.S. = 100)

New Poverty Line As Percent of Old Line	Type of Place; Specific Geographic Area Representative of this Type of Place
82.7	East South Central Region, non-metropolitan areas and metropolitan areas under 250,000 (specific place: Anniston, AL)
89.9	South Atlantic non-metropolitan areas and metropolitan areas under 250,000 population (specific place: Wilmington, NC)
102.8	Middle Atlantic metropolitan areas 500,000 to 1,000,000 population (specific place: Albany-Schenectady-Troy, NY)
105.9	East North Central metropolitan areas 2,500,000 or more population (specific place: Chicago, IL)
114.8	New England metropolitan areas 500,000 to 1,000,000 population (specific place: Springfield, MA)
120.9	New England metropolitan areas 2,500,000 or more population (specific place: Boston, MA)
121.7	Pacific metropolitan areas 2,500,000 or more population (specific place: San Diego and San Jose, CA)

Given the estimated poverty income index for each metropolitan and non-metropolitan area in the state,[61] a cost-of-living index for the entire state was calculated by multiplying the index for each area by its respective share of the state's population as of the March 1996 CPS survey.

To illustrate the procedures used to estimate the value of the cost-of-living index for each state, let us examine a hypothetical state containing 3 metropolitan areas and a set of non-metropolitan areas, called A, B, C, D. The values of the cost-of-housing adjusted poverty thresholds

for each of these areas is identified under Column A of Table B-2, and their share of the state population is identified in Column B. By multiplying each of the four poverty indexes by their respective shares of the state population and then summing the results across these four areas, we can obtain a value of the weighted cost-of-living index for each state. In our hypothetical example, the estimated cost-of-living index for the entire state was equal to 107.5. This finding implies that, on average, a family in this state would need a pre-tax income equal to 107.5% of the national poverty line for a family of their size and composition to afford the bundle of goods and services making-up the poverty budget. The average cost-of-living in this state as represented by the cost of purchasing the poverty budget was 7.5% higher than the national average.

Table B-2:
Procedures for Calculating the Cost-of-Living Index
for Our Hypothetical State

Geographic Area	(A) Poverty Line Index	(B) Share of State Population	(C) Col. A * Col. B
A	112.0	40.0	44.8
B	108.2	25.0	27.0
C	104.6	20.0	20.9
D	98.7	15.0	14.8
Sum		100.0	107.5

In Table B-3, we present our estimates of the weighted average cost of living index for each state in the nation as of 1995 and the estimated size of their resident, civilian non-institutional population at the time of the March 1996 CPS survey. The only exceptions to the procedures are the states of Alaska, Hawaii, and New Jersey. The cost of living adjustment factors for Alaska and Hawaii were derived from the adjusted poverty lines for these two states from the U.S. Department of Health and Human Services. Alaska is assigned a poverty line equal to 125% of the U.S. average while Hawaii is assigned a poverty line 15% above the U.S. average.[62]

The states are organized into the nine geographic divisions as defined by the U.S. Census Bureau. The values of the cost-of-living indexes for each state were multiplied by their share of the region's population to derive a weighted cost-of-living index for each geographic

division. The values of these regional cost-of-living indices ranged from a low of 88.3 for the East South Central region to a high of 115.0 for the New England region. Excluding the states of Alaska and Hawaii,New Jersey, Massachusetts, and California ranked first, second and third highest on the cost-of-living index. The lowest cost of living states were Mississippi (84.3), North and South Dakota (86.1), and Kentucky (86.9).

These state cost of living estimates were used to adjust the official poverty lines for families in each state across the nation during 1995 and 1996. These cost of living adjusted poverty lines were then used to re-estimate poverty rates for each state in the mid-1990s and to serve as the earnings benchmarks for determining whether terminees from JTPA Title IIA and Title III programs were able to obtain an adequate income for their families from year-round employment at weekly wages equal to those obtained on their first post-program jobs.

Table B-3:
Weighted Average Cost of Living Index for Each State in the U.S., by Geographic Region, 1995

Region	State	(A) Cost-of-Living Index	(B) 1995 Population
New England	Maine	112.8	1,234,115
	New Hampshire	112.8	1,146,411
	Vermont	112.8	582,848
	Massachusetts	117.2	6,060,566
	Rhode Island	113.9	989,871
	Connecticut	113.2	3,266,775
	Total	115.0	13,280,586
Middle Atlantic	New York	110.4	18,145,847
	New Jersey	120.3	7,955,750
	Pennsylvania	107.2	12,045,956
	Total	111.5	38,147,553
East North Central	Ohio	97.2	11,132,614
	Indiana	93.3	5,787,839
	Illinois	101.0	11,794,631
	Michigan	100.4	9,655,305
	Wisconsin	94.5	5,113,124
	Total	98.2	43,483,513
West North Central	Minnesota	95.7	4,606,797
	Iowa	88.8	2,840,571

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Region	State	(A) Cost-of-Living Index	(B) 1995 Population
	Missouri	99.9	5,324,825
	N. Dakota	86.1	641,344
	S. Dakota	86.1	734,932
	Nebraska	90.2	1,636,275
	Kansas	87.9	2,569,619
	Total	93.6	18,354,363
South Atlantic	Delaware	94.0	715,700
	Maryland	100.3	5,027,451
	District of Columbia	111.9	552,304
	Virginia	101.3	6,601,122
	W. Virginia	90.9	1,821,957
	N. Carolina	98.3	7,186,912
	S. Carolina	97.0	3,683,395
	Georgia	91.9	7,192,305
	Florida	100.4	14,181,147
	Total	98.3	
East South Central	Kentucky	86.9	3,856,212
	Tennessee	91.3	5,235,258
	Alabama	88.4	4,261,963
	Mississippi	84.2	2,690,563
	Total	88.3	16,043,996
West South Central	Arkansas	88.2	2,480,819
	Louisiana	91.8	4,328,552
	Oklahoma	90.2	3,271,413
	Texas	93.5	18,737,574
	Total	92.4	28,818,358
Mountain	Montana	88.8	868,748
	Idaho	91.7	1,164,887
	Wyoming	88.8	478,532
	Colorado	97.8	3,741,575
	New Mexico	94.3	1,686,288
	Arizona	98.9	4,308,188
	Utah	97.4	1,974,363
	Nevada	98.3	1,529,549
	Total	96.5	15,752,130
Pacific	Washington	109.1	5,435,893
	Oregon	104.8	3,142,978
	California	114.6	31,558,406
	Alaska	125.0	601,646
	Hawaii	115.0	1,178,824
	Total	113.4	41,917,747

Appendix C:

The Number of Terminees from JTPA Section 204(d), Title II A, and Title III Programs, by State, PY 93 to PY 96

Appendix Table C-1: Number of Terminees from JTPA Section 204(d) Programs on the SPIR Public Use Data Files (Excludes Objective Assessment Only)

	SPIR93	SPIR94	SPIR95	SPIR96
Total	15,150	20,212	19,445	17,719
Alabama	120	217	307	199
Alaska	20	31	21	26
Arizona	107	182	280	242
Arkansas	202	268	451	184
California	1,367	1,746	1,858	2,109
Colorado	227	517	441	343
Connecticut	138	—	63	120
Delaware	45	53	48	49
District of Columbia	82	78	—	136
Florida	1,703	2,173	1,964	914
Georgia	112	296	298	357
Hawaii	88	83	114	116
Idaho	58	69	88	83
Illinois	776	1,143	1,182	999
Indiana	184	244	231	187
Iowa	92	117	216	155
Kansas	241	108	185	218
Kentucky	181	221	209	235
Louisiana	428	524	508	529
Maine	54	73	68	82
Maryland	259	460	459	419
Massachusetts	233	391	414	380
Michigan	695	992	770	789

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	SPIR93	SPIR94	SPIR95	SPIR96
Minnesota	366	535	472	284
Mississippi	254	322	296	285
Missouri	445	699	383	282
Montana	57	84	78	63
Nebraska	11	36	62	34
Nevada	109	78	58	59
New Hampshire	80	65	55	31
New Jersey	244	348	424	383
New Mexico	76	153	77	70
New York	457	751	690	702
N. Carolina	323	492	452	388
N. Dakota	33	33	34	29
Ohio	437	580	697	803
Oklahoma	183	232	139	159
Oregon	197	231	246	205
Pennsylvania	567	660	526	578
Rhode Island	24	71	73	61
S. Carolina	217	255	200	258
S. Dakota	131	142	144	106
Tennessee	236	444	285	188
Texas	1,803	2,191	2,049	1,948
Utah	72	49	54	49
Vermont	39	62	61	20
Virginia	294	433	313	340
Washington	252	232	311	307
W. Virginia	70	80	44	71
Wisconsin	385	430	358	358
Wyoming	37	48	60	46
Puerto Rico	339	490	629	741

Appendix Table C-2: Number of Terminees from JTPA Title II-A Programs on the SPIR Public Use Data Files (Excludes Objective Assessment Only)

	SPIR93	SPIR94	SPIR95	SPIR96
Total	180,178	232,259	211,184	199,730
Alabama	4,912	4,148	3,458	2,992
Alaska	279	459	513	470
Arizona	1,992	2,773	2,847	3,123
Arkansas	2,264	2,228	1,582	1,628
California	18,536	24,269	23,997	25,558
Colorado	2,938	3,684	3,087	2,862
Connecticut	1,847	——	1,095	1,256
Delaware	860	810	769	721
District of Columbia	365	674	830	1,029

	SPIR93	SPIR94	SPIR95	SPIR96
Florida	7,756	11,186	9,669	8,482
Georgia	3,066	3,695	4,365	3,234
Hawaii	464	758	757	809
Idaho	626	813	710	696
Illinois	9,026	11,763	9,952	8,087
Indiana	2,608	3,387	3,260	2,903
Iowa	1,456	1,456	1,079	816
Kansas	1,122	1,035	1,055	1,209
Kentucky	2,368	3,203	3,003	2,610
Louisiana	4,582	6,039	4,265	4,311
Maine	880	1,188	1,096	1,142
Maryland	4,466	6,578	6,184	4,540
Massachusetts	5,106	6,201	5,095	3,855
Michigan	9,303	11,218	7,651	8,182
Minnesota	3,562	5,137	4,557	3,086
Mississippi	4,265	4,402	3,981	3,518
Missouri	3,175	4,062	2,619	2,786
Montana	709	686	571	454
Nebraska	738	840	640	593
Nevada	1,052	875	995	1,081
New Hampshire	1,005	1,114	640	566
New Jersey	5,497	7,541	6,637	5,495
New Mexico	856	1,145	1,182	1,302
New York	8,483	13,888	11,285	15,376
N. Carolina	3,285	4,540	4,133	3,771
N. Dakota	474	682	573	632
Ohio	8,067	8,590	7,268	6,304
Oklahoma	1,829	1,803	1,779	1,644
Oregon	2,253	2,719	2,794	2,453
Pennsylvania	11,816	16,071	15,712	13,747
Rhode Island	715	1,100	719	747
S. Carolina	2,472	3,111	3,171	3,148
S. Dakota	829	1,148	1,069	1,188
Tennessee	3,065	8,272	4,108	3,995
Texas	11,296	14,134	14,674	13,566
Utah	1,039	1,052	956	632
Vermont	508	751	758	573
Virginia	4,265	5,621	4,876	4,657
Washington	3,194	4,333	4,427	4,282
W. Virginia	2,917	3,546	2,614	1,947
Wisconsin	3,581	4,847	4,485	3,963
Wyoming	338	327	447	566
Puerto Rico	2,071	2,357	7,195	7,143

Appendix Table C-3: Number of Terminees from JTPA Title III Programs on the SPIR Public Use Data Files

	SPIR93	SPIR94	SPIR95	SPIR96
Total	164,826	241,433	328,883	371,893
Alabama	1,985	3,097	4,072	4,907
Alaska	191	278	658	634
Arizona	3,046	4,685	4,916	5,336
Arkansas	2,269	2,932	3,568	4,615
California	16,943	27,210	34,405	47,317
Colorado	2,262	3,066	6,231	6,627
Connecticut	2,283	——	2,798	5,116
Delaware	381	464	556	564
District of Columbia	79	441	306	515
Florida	6,734	9,049	11,968	13,800
Georgia	6,689	9,130	15,539	15,092
Hawaii	316	1,172	1,749	1,249
Idaho	430	708	991	1,315
Illinois	10,368	12,735	21,292	20,724
Indiana	3,029	4,256	7,878	9,190
Iowa	2,573	3,330	1,950	2,809
Kansas	685	965	2,381	2,562
Kentucky	3,809	4,139	4,075	4,612
Louisiana	2,278	3,216	4,134	4,813
Maine	1,025	1,361	1,839	2,446
Maryland	4,158	8,360	10,620	8,726
Massachusetts	9,872	11,803	12,955	10,730
Michigan	6,167	7,691	8,043	9,948
Minnesota	2,832	4,827	4,872	3,820
Mississippi	2,531	4,129	5,128	6,966
Missouri	5,411	7,247	5,814	4,772
Montana	832	1,154	1,307	1,297
Nebraska	602	591	558	522
Nevada	634	1,333	1,370	1,731
New Hampshire	490	1,303	799	904
New Jersey	3,030	7,225	25,255	22,189
New Mexico	1,390	1,979	1,307	1,368
New York	6,869	12,657	15,648	21,653
N. Carolina	3,457	4,138	4,416	4,628
N. Dakota	203	359	615	566
Ohio	4,398	6,889	11,750	12,774
Oklahoma	1,463	2,319	3,112	6,434
Oregon	2,996	4,732	6,497	6,343
Pennsylvania	8,476	11,950	14,538	17,860
Rhode Island	1,177	2,223	2,174	2,975
S. Carolina	3,627	5,939	9,702	13,813
S. Dakota	272	188	523	561

	SPIR93	SPIR94	SPIR95	SPIR96
Tennessee	1,011	572	4,656	6,265
Texas	11,370	17,897	18,765	18,984
Utah	613	1,120	1,630	1,077
Vermont	1,037	985	810	499
Virginia	2,861	4,373	5,628	7,763
Washington	2,902	5,755	7,614	8,822
W. Virginia	1,796	2,878	3,488	3,342
Wisconsin	3,633	5,051	4,346	3,957
Wyoming	120	91	252	290
Puerto Rico	1,221	1,441	3,385	6,008

Appendix D:

Estimates of the Fraction of Title II A Terminees with Annualized Earnings Above Alternative Adequacy Thresholds, by State: PY 96

Appendix Table D-1: Percent of Title II-A Terminees with Annualized Earnings Above Alternative Poverty Income Thresholds, Before Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Official Threshold	1.33 Times Threshold	1.50 Times Threshold	1.65 Times Threshold
U.S. Total	126,754	67.8%	46.2%	36.9%	29.5%
Alabama	1,987	55.3%	35.4%	28.6%	22.9%
Alaska	311	82.0%	65.6%	60.5%	54.3%
Arizona	1,771	60.1%	37.3%	28.6%	21.0%
Arkansas	1,043	57.6%	36.0%	27.8%	21.8%
California	17,424	75.4%	54.5%	43.5%	34.4%
Colorado	1,840	67.9%	40.3%	30.5%	23.5%
Connecticut	865	68.9%	49.0%	40.8%	34.7%
Delaware	466	63.3%	41.4%	31.8%	25.1%
D.C.	488	80.1%	62.1%	51.2%	45.7%
Florida	5,807	67.3%	44.3%	34.3%	27.2%
Georgia	2,374	65.7%	39.8%	29.8%	21.3%
Hawaii	517	65.6%	44.7%	37.5%	31.5%
Idaho	590	65.6%	44.2%	35.6%	28.8%
Illinois	5,080	70.8%	49.8%	39.9%	32.9%
Indiana	2,232	76.3%	54.8%	44.2%	36.6%
Iowa	572	66.8%	47.4%	36.0%	28.7%
Kansas	865	66.8%	44.3%	36.3%	28.4%
Kentucky	1,496	54.8%	33.7%	26.9%	20.0%
Louisiana	2,926	58.4%	40.1%	32.7%	27.8%
Maine	879	63.1%	40.5%	31.4%	24.9%

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	Number of Terminees	Official Threshold	1.33 Times Threshold	1.50 Times Threshold	1.65 Times Threshold
Maryland	2,517	69.1%	45.8%	34.9%	27.1%
Massachusetts	2,848	75.0%	55.5%	45.3%	36.8%
Michigan	5,741	70.1%	49.2%	40.1%	30.6%
Minnesota	2,317	76.6%	56.5%	45.9%	38.0%
Mississippi	2,596	63.6%	38.4%	28.0%	21.3%
Missouri	2,019	64.9%	41.8%	32.8%	24.3%
Montana	348	67.2%	41.1%	31.6%	24.7%
Nebraska	377	69.0%	46.4%	39.8%	32.1%
Nevada	699	68.7%	40.1%	30.2%	25.8%
New Hampshire	347	74.9%	49.0%	40.3%	31.4%
New Jersey	3,638	77.2%	57.2%	49.2%	41.9%
New Mexico	662	57.3%	32.8%	25.4%	19.9%
New York	8,903	77.9%	58.1%	49.0%	40.5%
N. Carolina	2,820	64.9%	40.9%	29.8%	22.2%
N. Dakota	377	68.7%	42.4%	32.9%	24.1%
Ohio	3,807	67.2%	45.7%	36.8%	30.0%
Oklahoma	1,161	67.7%	46.8%	37.8%	28.8%
Oregon	1,800	68.7%	49.4%	39.1%	31.0%
Pennsylvania	9,425	55.5%	32.5%	24.8%	19.2%
Rhode Island	404	57.2%	33.9%	25.2%	19.8%
S. Carolina	2,027	56.7%	34.7%	27.9%	21.6%
S. Dakota	873	57.2%	34.6%	27.0%	20.0%
Tennessee	1,865	58.0%	33.5%	25.8%	19.3%
Texas	8,557	69.4%	48.6%	40.3%	33.1%
Utah	455	64.8%	43.3%	34.9%	27.5%
Vermont	409	66.5%	46.2%	36.9%	29.6%
Virginia	3,359	55.7%	34.2%	25.3%	19.4%
Washington	2,943	74.1%	52.5%	43.2%	34.3%
W. Virginia	1,054	51.8%	28.1%	22.5%	16.4%
Wisconsin	2,510	62.5%	40.0%	30.6%	24.8%
Wyoming	363	56.5%	38.6%	32.2%	25.6%

Appendix Table D-2: Percent of Title II-A Terminees with Annualized Earnings Above the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

		Before Adjustment		After Adjustment	
	Number of Terminees	Percent	Rank	Percent	Rank
U.S. Total	126,754	67.8%		67.9%	
Alabama	1,987	55.3%	49	67.0%	33
Alaska	311	82.0%	1	71.1%	17
Arizona	1,771	60.1%	38	62.0%	42
Arkansas	1,043	57.6%	41	69.1%	24
California	17,424	75.4%	7	68.2%	28

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Colorado	1,840	67.9%	20	71.4%	15
Connecticut	865	68.9%	16	59.8%	46
Delaware	466	63.3%	35	70.6%	18
D.C.	488	80.1%	2	76.2%	7
Florida	5,807	67.3%	22	67.1%	32
Georgia	2,374	65.7%	28	71.9%	14
Hawaii	517	65.6%	30	56.3%	47
Idaho	590	65.6%	29	69.7%	22
Illinois	5,080	70.8%	11	70.5%	19
Indiana	2,232	76.3%	6	80.9%	1
Iowa	572	66.8%	26	74.5%	11
Kansas	865	66.8%	25	77.0%	5
Kentucky	1,496	54.8%	50	65.9%	37
Louisiana	2,926	58.4%	39	65.7%	38
Maine	879	63.1%	36	54.6%	49
Maryland	2,517	69.1%	14	69.1%	25
Massachusetts	2,848	75.0%	8	65.4%	39
Michigan	5,741	70.1%	12	69.8%	21
Minnesota	2,317	76.6%	5	79.7%	3
Mississippi	2,596	63.6%	34	75.0%	10
Missouri	2,019	64.9%	32	64.9%	40
Montana	348	67.2%	23	75.9%	8
Nebraska	377	69.0%	15	76.9%	6
Nevada	699	68.7%	19	71.2%	16
New Hampshire	347	74.9%	9	66.3%	35
New Jersey	3,638	77.2%	4	79.7%	2
New Mexico	662	57.3%	42	63.1%	41
New York	8,903	77.9%	3	72.1%	13
N. Carolina	2,820	64.9%	31	68.5%	26
N. Dakota	377	68.7%	18	79.0%	4
Ohio	3,807	67.2%	24	70.2%	20
Oklahoma	1,161	67.7%	21	75.1%	9
Oregon	1,800	68.7%	17	65.9%	36
Pennsylvania	9,425	55.5%	48	51.2%	50
Rhode Island	404	57.2%	43	45.3%	51
S. Carolina	2,027	56.7%	45	61.4%	43
S. Dakota	873	57.2%	44	69.2%	23
Tennessee	1,865	58.0%	40	67.9%	29
Texas	8,557	69.4%	13	74.2%	12
Utah	455	64.8%	33	66.8%	34
Vermont	409	66.5%	27	60.1%	45
Virginia	3,359	55.7%	47	55.1%	48
Washington	2,943	74.1%	10	68.3%	27
W. Virginia	1,054	51.8%	51	60.4%	44
Wisconsin	2,510	62.5%	37	67.1%	31
Wyoming	363	56.5%	46	67.2%	30

Appendix Table D-3: Percent of Title II-A Terminees with Annualized Earnings Above 1.33 Times the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

		Before Adjustment		After Adjustment	
	Number of Terminees	Percent	Rank	Percent	Rank
U.S. Total	126,754	46.2%		45.5%	
Alabama	1,987	35.4%	42	46.8%	22
Alaska	311	65.6%	1	52.4%	14
Arizona	1,771	37.3%	40	38.6%	42
Arkansas	1,043	36.0%	41	46.2%	25
California	17,424	54.5%	8	43.1%	34
Colorado	1,840	40.3%	33	43.2%	33
Connecticut	865	49.0%	13	40.6%	40
Delaware	466	41.4%	29	45.9%	26
D.C.	488	62.1%	2	53.1%	11
Florida	5,807	44.3%	23	43.2%	32
Georgia	2,374	39.8%	37	49.5%	16
Hawaii	517	44.7%	22	35.8%	47
Idaho	590	44.2%	25	52.9%	12
Illinois	5,080	49.8%	10	49.0%	17
Indiana	2,232	54.8%	7	61.4%	1
Iowa	572	47.4%	16	55.4%	7
Kansas	865	44.3%	24	54.3%	9
Kentucky	1,496	33.7%	47	45.3%	29
Louisiana	2,926	40.1%	34	46.6%	23
Maine	879	40.5%	32	31.3%	49
Maryland	2,517	45.8%	20	45.8%	27
Massachusetts	2,848	55.5%	6	41.6%	39
Michigan	5,741	49.2%	12	48.0%	20
Minnesota	2,317	56.5%	5	60.3%	3
Mississippi	2,596	38.4%	39	56.1%	5
Missouri	2,019	41.8%	28	41.8%	37
Montana	348	41.1%	30	52.9%	13
Nebraska	377	46.4%	18	54.6%	8
Nevada	699	40.1%	35	42.8%	35
New Hampshire	347	49.0%	14	40.3%	41
New Jersey	3,638	57.2%	4	61.0%	2
New Mexico	662	32.8%	49	38.2%	44
New York	8,903	58.1%	3	50.5%	15
N. Carolina	2,820	40.9%	31	42.1%	36
N. Dakota	377	42.4%	27	58.4%	4
Ohio	3,807	45.7%	21	48.4%	18
Oklahoma	1,161	46.8%	17	56.0%	6
Oregon	1,800	49.4%	11	46.5%	24
Pennsylvania	9,425	32.5%	50	27.5%	50

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Rhode Island	404	33.9%	46	25.2%	51
S. Carolina	2,027	34.7%	43	36.8%	46
S. Dakota	873	34.6%	44	48.1%	19
Tennessee	1,865	33.5%	48	41.7%	38
Texas	8,557	48.6%	15	54.1%	10
Utah	455	43.3%	26	44.2%	31
Vermont	409	46.2%	19	36.9%	45
Virginia	3,359	34.2%	45	32.8%	48
Washington	2,943	52.5%	9	45.5%	28
W. Virginia	1,054	28.1%	51	38.2%	43
Wisconsin	2,510	40.0%	36	44.9%	30
Wyoming	363	38.6%	38	47.1%	21

Appendix Table D-4: Percent of Title II-A Terminees with Annualized Earnings Above 1.50 Times the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
U.S. Total	126,754	36.9%		35.4%	
Alabama	1,987	28.6%	39	36.2%	26
Alaska	311	60.5%	1	43.1%	11
Arizona	1,771	28.6%	40	29.3%	42
Arkansas	1,043	27.8%	43	37.9%	21
California	17,424	43.5%	8	30.4%	40
Colorado	1,840	30.5%	35	33.0%	33
Connecticut	865	40.8%	10	31.4%	38
Delaware	466	31.8%	31	36.3%	25
D.C.	488	51.2%	2	43.0%	12
Florida	5,807	34.3%	26	34.2%	32
Georgia	2,374	29.8%	37	36.6%	23
Hawaii	517	37.5%	18	27.7%	45
Idaho	590	35.6%	23	42.7%	13
Illinois	5,080	39.9%	14	39.7%	16
Indiana	2,232	44.2%	7	51.4%	2
Iowa	572	36.0%	22	47.4%	4
Kansas	865	36.3%	21	46.2%	5
Kentucky	1,496	26.9%	45	35.0%	27
Louisiana	2,926	32.7%	29	38.4%	20
Maine	879	31.4%	33	22.3%	49
Maryland	2,517	34.9%	25	34.8%	28
Massachusetts	2,848	45.3%	6	31.5%	37

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	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Michigan	5,741	40.1%	13	39.9%	15
Minnesota	2,317	45.9%	5	49.7%	3
Mississippi	2,596	28.0%	41	46.0%	7
Missouri	2,019	32.8%	28	32.8%	35
Montana	348	31.6%	32	41.1%	14
Nebraska	377	39.8%	15	45.6%	9
Nevada	699	30.2%	36	32.3%	36
New Hampshire	347	40.3%	11	28.5%	43
New Jersey	3,638	49.2%	3	52.0%	1
New Mexico	662	25.4%	47	27.9%	44
New York	8,903	49.0%	4	39.2%	18
N. Carolina	2,820	29.8%	38	31.3%	39
N. Dakota	377	32.9%	27	46.2%	6
Ohio	3,807	36.8%	20	39.2%	17
Oklahoma	1,161	37.8%	17	45.8%	8
Oregon	1,800	39.1%	16	34.7%	29
Pennsylvania	9,425	24.8%	50	20.0%	50
Rhode Island	404	25.2%	49	15.1%	51
S. Carolina	2,027	27.9%	42	29.5%	41
S. Dakota	873	27.0%	44	36.4%	24
Tennessee	1,865	25.8%	46	32.9%	34
Texas	8,557	40.3%	12	44.4%	10
Utah	455	34.9%	24	37.1%	22
Vermont	409	36.9%	19	27.4%	46
Virginia	3,359	25.3%	48	25.0%	48
Washington	2,943	43.2%	9	34.6%	30
W. Virginia	1,054	22.5%	51	27.2%	47
Wisconsin	2,510	30.6%	34	34.3%	31
Wyoming	363	32.2%	30	38.8%	19

Appendix Table D-5: Percent of Title II-A Terminees with Annualized Earnings Above 1.65 Times the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
U.S. Total	126,754	29.5%		27.6%	
Alabama	1,987	22.9%	37	30.1%	17
Alaska	311	54.3%	1	36.7%	9
Arizona	1,771	21.0%	43	22.1%	43
Arkansas	1,043	21.8%	39	29.7%	20
California	17,424	34.4%	9	23.3%	38
Colorado	1,840	23.5%	36	24.7%	34

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Connecticut	865	34.7%	8	24.2%	37
Delaware	466	25.1%	30	29.2%	22
D.C.	488	45.7%	2	27.5%	29
Florida	5,807	27.2%	26	25.7%	33
Georgia	2,374	21.3%	42	29.2%	21
Hawaii	517	31.5%	14	21.3%	45
Idaho	590	28.8%	20	35.3%	11
Illinois	5,080	32.9%	12	30.0%	18
Indiana	2,232	36.6%	7	40.4%	3
Iowa	572	28.7%	22	38.3%	7
Kansas	865	28.4%	23	39.4%	5
Kentucky	1,496	20.0%	45	29.0%	23
Louisiana	2,926	27.8%	24	32.5%	15
Maine	879	24.9%	31	17.0%	49
Maryland	2,517	27.1%	27	27.1%	30
Massachusetts	2,848	36.8%	6	22.2%	42
Michigan	5,741	30.6%	17	28.4%	25
Minnesota	2,317	38.0%	5	40.7%	2
Mississippi	2,596	21.3%	41	33.8%	12
Missouri	2,019	24.3%	34	24.4%	36
Montana	348	24.7%	33	33.6%	13
Nebraska	377	32.1%	13	40.3%	4
Nevada	699	25.8%	28	26.0%	31
New Hampshire	347	31.4%	15	19.3%	47
New Jersey	3,638	41.9%	3	43.0%	1
New Mexico	662	19.9%	46	22.7%	40
New York	8,903	40.5%	4	29.0%	24
N. Carolina	2,820	22.2%	38	22.8%	39
N. Dakota	377	24.1%	35	36.3%	10
Ohio	3,807	30.0%	18	31.2%	16
Oklahoma	1,161	28.8%	21	38.9%	6
Oregon	1,800	31.0%	16	27.5%	28
Pennsylvania	9,425	19.2%	50	15.9%	50
Rhode Island	404	19.8%	47	12.4%	51
S. Carolina	2,027	21.6%	40	22.0%	44
S. Dakota	873	20.0%	44	29.8%	19
Tennessee	1,865	19.3%	49	25.7%	32
Texas	8,557	33.1%	11	37.3%	8
Utah	455	27.5%	25	28.1%	26
Vermont	409	29.6%	19	20.8%	46
Virginia	3,359	19.4%	48	17.6%	48
Washington	2,943	34.3%	10	24.6%	35
W. Virginia	1,054	16.4%	51	22.5%	41
Wisconsin	2,510	24.8%	32	27.8%	27
Wyoming	363	25.6%	29	33.3%	14

Appendix Table D-6: Percent of Title II-A Terminees with Annualized Earnings Above the Poverty Line, Before Adjusting for Cost of Living, by Number of Dependents, SPIR 1996

	None	One	Two	Three	Four	Five or More
U.S. Total	91.3%	75.3%	56.6%	29.9%	14.3%	7.2%
Alabama	86.0%	58.2%	35.0%	16.4%	12.2%	3.6%
Alaska	99.1%	88.1%	70.1%	67.4%	46.2%	40.0%
Arizona	92.8%	71.8%	54.4%	15.3%	4.0%	1.6%
Arkansas	92.0%	62.2%	47.0%	33.1%	20.3%	4.3%
California	93.9%	81.8%	60.9%	33.6%	13.7%	4.9%
Colorado	91.6%	78.8%	67.8%	33.9%	18.0%	11.1%
Connecticut	89.3%	79.1%	57.8%	36.6%	15.2%	15.0%
Delaware	91.0%	79.0%	52.0%	22.6%	15.2%	0.0%
D.C.	90.7%	92.9%	68.6%	13.3%	0.0%	0.0%
Florida	89.4%	81.0%	61.6%	28.2%	12.2%	4.2%
Georgia	95.7%	63.9%	50.5%	24.9%	8.5%	2.8%
Hawaii	86.3%	67.3%	67.9%	20.9%	5.9%	0.0%
Idaho	89.1%	78.3%	61.6%	25.3%	12.0%	22.2%
Illinois	89.7%	81.0%	63.7%	35.9%	18.8%	7.3%
Indiana	94.7%	82.1%	68.9%	40.7%	23.5%	20.0%
Iowa	85.6%	75.7%	61.2%	32.7%	25.9%	17.6%
Kansas	94.0%	80.0%	70.4%	45.3%	19.0%	10.0%
Kentucky	83.1%	63.8%	37.6%	19.8%	7.8%	0.0%
Louisiana	89.3%	57.1%	38.9%	21.0%	11.3%	1.8%
Maine	83.5%	66.3%	45.2%	29.5%	15.8%	16.7%
Maryland	88.6%	73.9%	53.6%	21.1%	11.8%	8.8%
Massachusetts	93.4%	83.0%	67.1%	43.4%	13.9%	8.2%
Michigan	88.9%	73.1%	59.5%	29.2%	20.0%	13.0%
Minnesota	94.3%	87.3%	69.7%	47.9%	21.8%	12.2%
Mississippi	87.3%	67.5%	36.5%	13.0%	1.9%	2.4%
Missouri	95.1%	77.2%	54.7%	26.1%	8.2%	2.7%
Montana	92.3%	78.6%	56.1%	25.6%	13.3%	60.0%
Nebraska	91.1%	83.0%	65.1%	23.5%	25.0%	22.2%
Nevada	96.0%	82.5%	61.9%	24.1%	5.6%	0.0%
New Hampshire	94.3%	88.6%	62.1%	46.5%	27.3%	0.0%
New Jersey	94.5%	82.1%	70.6%	44.5%	21.8%	6.7%
New Mexico	92.0%	69.6%	48.0%	24.0%	7.8%	10.0%
New York	94.4%	80.1%	64.1%	33.3%	19.4%	10.7%
N. Carolina	89.6%	75.9%	52.0%	22.9%	10.2%	8.3%
N. Dakota	90.8%	80.9%	46.2%	38.5%	16.7%	0.0%
Ohio	91.5%	77.4%	58.7%	35.0%	21.5%	11.0%
Oklahoma	93.1%	77.4%	60.9%	41.6%	18.6%	16.7%
Oregon	89.5%	71.5%	55.3%	31.1%	11.7%	6.7%
Pennsylvania	88.1%	68.6%	49.9%	21.9%	9.3%	4.5%
Rhode Island	94.2%	64.6%	50.9%	17.9%	11.8%	0.0%

	None	One	Two	Three	Four	Five or More
S. Carolina	89.4%	67.6%	44.9%	18.1%	3.8%	5.1%
S. Dakota	87.3%	65.0%	39.0%	8.9%	10.6%	0.0%
Tennessee	85.1%	71.9%	52.1%	23.6%	4.2%	6.3%
Texas	94.0%	78.4%	60.8%	37.8%	21.3%	11.2%
Utah	89.1%	79.0%	66.4%	35.2%	30.0%	12.5%
Vermont	82.7%	63.1%	47.9%	45.0%	21.4%	0.0%
Virginia	89.7%	60.0%	36.8%	17.3%	5.5%	3.4%
Washington	91.0%	78.9%	67.9%	43.7%	20.9%	8.6%
W. Virginia	77.8%	43.4%	33.8%	26.2%	8.8%	10.0%
Wisconsin	85.7%	80.2%	61.3%	24.7%	10.6%	0.9%
Wyoming	81.3%	74.1%	27.8%	19.5%	0.0%	12.5%

Appendix Table D-7: Percent of Title II-A Terminees with Annualized Earnings Above the Poverty Line, After Adjusting for Cost of Living, by Number of Dependents, SPIR 1996

	None	One	Two	Three	Four	Five or More
U.S. Total	90.6%	75.9%	58.2%	28.9%	15.0%	7.8%
Alabama	91.0%	78.5%	53.1%	24.6%	18.9%	3.6%
Alaska	96.4%	73.1%	55.2%	46.5%	30.8%	40.0%
Arizona	92.8%	72.6%	61.7%	16.5%	4.0%	1.6%
Arkansas	94.4%	77.9%	65.0%	42.4%	27.1%	13.0%
California	91.0%	70.5%	50.0%	20.0%	7.8%	2.4%
Colorado	91.8%	83.8%	74.9%	35.0%	22.0%	11.1%
Connecticut	82.7%	70.3%	48.3%	19.8%	4.3%	5.0%
Delaware	92.3%	89.5%	66.3%	27.4%	27.3%	0.0%
D.C.	89.4%	81.4%	60.0%	10.0%	0.0%	0.0%
Florida	88.9%	81.0%	61.6%	28.1%	11.8%	4.2%
Georgia	96.5%	74.2%	61.7%	32.4%	18.3%	8.3%
Hawaii	77.3%	57.4%	58.7%	9.0%	0.0%	0.0%
Idaho	89.7%	81.8%	69.5%	31.6%	16.0%	22.2%
Illinois	89.2%	80.8%	63.5%	35.4%	18.8%	7.3%
Indiana	95.6%	87.7%	76.3%	50.4%	32.9%	24.4%
Iowa	89.7%	81.6%	74.1%	47.3%	29.6%	17.6%
Kansas	96.3%	87.1%	81.9%	64.2%	33.3%	30.0%
Kentucky	86.9%	78.7%	54.6%	28.7%	11.8%	6.3%
Louisiana	92.4%	71.5%	47.1%	28.6%	16.9%	3.6%
Maine	77.7%	58.4%	33.2%	16.8%	5.3%	16.7%
Maryland	88.6%	73.9%	53.6%	21.1%	11.8%	8.8%
Massachusetts	88.0%	77.7%	53.6%	18.2%	4.0%	2.0%
Michigan	88.3%	73.0%	59.5%	29.2%	19.5%	13.0%
Minnesota	94.5%	89.4%	76.1%	54.4%	25.5%	16.3%
Mississippi	91.2%	86.4%	62.0%	29.1%	11.7%	4.9%

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	None	One	Two	Three	Four	Five or More
Missouri	95.1%	77.2%	54.7%	26.1%	9.2%	2.7%
Montana	97.8%	84.8%	72.0%	32.6%	20.0%	80.0%
Nebraska	93.5%	90.9%	76.7%	39.2%	35.0%	22.2%
Nevada	96.0%	86.4%	68.4%	25.3%	5.6%	0.0%
New Hampshire	88.7%	83.0%	51.6%	30.2%	9.1%	0.0%
New Jersey	94.8%	85.6%	74.5%	49.5%	25.6%	11.7%
New Mexico	93.2%	79.7%	58.8%	26.0%	9.8%	10.0%
New York	91.1%	74.3%	53.5%	23.2%	14.2%	8.0%
N. Carolina	89.8%	81.1%	60.1%	23.7%	12.5%	8.3%
N. Dakota	95.1%	91.0%	67.9%	50.0%	25.0%	0.0%
Ohio	91.6%	80.6%	63.8%	41.0%	23.7%	13.7%
Oklahoma	95.6%	84.8%	70.4%	53.8%	25.4%	27.8%
Oregon	88.3%	68.4%	51.7%	22.6%	10.4%	6.7%
Pennsylvania	86.2%	63.7%	44.7%	14.8%	7.5%	4.5%
Rhode Island	89.3%	44.8%	36.8%	6.0%	11.8%	0.0%
S. Carolina	89.9%	70.6%	56.7%	22.8%	4.7%	5.1%
S. Dakota	91.9%	77.9%	63.6%	25.7%	14.9%	5.0%
Tennessee	87.7%	82.5%	67.7%	30.9%	13.7%	9.4%
Texas	95.3%	84.7%	69.5%	42.8%	25.3%	13.5%
Utah	89.1%	81.9%	69.9%	35.2%	35.0%	12.5%
Vermont	79.7%	59.5%	38.4%	22.5%	14.3%	0.0%
Virginia	89.3%	59.1%	36.3%	16.5%	5.5%	3.4%
Washington	88.4%	73.8%	59.6%	28.8%	15.7%	5.2%
W. Virginia	81.7%	58.2%	46.9%	28.6%	14.7%	10.0%
Wisconsin	88.1%	84.1%	70.4%	30.0%	15.2%	0.9%
Wyoming	87.1%	80.0%	48.6%	43.9%	5.6%	12.5%

Appendix E:

Estimates of the Fraction of Title III Terminees with Annualized Earnings Above Alternative Adequacy Thresholds, by State: PY 96

Appendix Table E-1: Percent of Title III Terminees with Annualized Earnings Above Alternative Poverty Income Thresholds, Before Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Official Threshold	1.33 Times Threshold	1.50 Times Threshold	1.65 Times Threshold
U.S. Total	247,139	86.0%	73.2%	66.5%	60.1%
Alabama	3,099	72.5%	51.1%	42.4%	35.6%
Alaska	418	92.6%	84.2%	80.6%	74.4%
Arizona	4,274	90.5%	78.4%	72.5%	66.1%
Arkansas	2,420	74.7%	53.4%	44.6%	36.1%
California	31,595	89.9%	79.1%	73.3%	67.6%
Colorado	5,301	92.6%	83.3%	77.5%	72.4%
Connecticut	3,656	94.3%	86.1%	82.2%	78.6%
Delaware	405	81.5%	66.2%	57.8%	49.4%
D.C.	265	97.4%	91.7%	87.2%	77.0%
Florida	9,779	86.1%	70.4%	62.8%	55.0%
Georgia	10,808	85.9%	68.3%	60.5%	52.5%
Hawaii	881	81.7%	64.5%	57.0%	50.7%
Idaho	1,030	84.5%	68.3%	59.5%	50.9%
Illinois	13,558	89.2%	76.5%	69.8%	63.6%
Indiana	4,262	93.2%	82.8%	76.0%	69.1%
Iowa	2,130	80.8%	62.8%	55.3%	46.6%
Kansas	1,331	83.3%	67.8%	59.8%	51.4%
Kentucky	2,757	84.8%	66.2%	57.4%	49.0%
Louisiana	3,835	77.9%	59.3%	51.1%	44.2%
Maine	2,027	85.4%	67.2%	58.5%	49.0%
Maryland	6,366	91.0%	79.9%	73.0%	66.4%

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	Number of Terminees	Official Threshold	1.33 Times Threshold	1.50 Times Threshold	1.65 Times Threshold
Massachusetts	7,804	94.1%	85.6%	80.3%	75.6%
Michigan	7,220	86.0%	72.3%	64.2%	56.7%
Minnesota	2,698	91.8%	81.5%	76.4%	71.0%
Mississippi	4,383	74.4%	52.0%	41.8%	34.1%
Missouri	3,215	86.1%	67.9%	60.3%	51.9%
Montana	1,005	89.6%	77.1%	70.5%	64.6%
Nebraska	382	80.6%	63.1%	57.1%	48.4%
Nevada	1,347	91.0%	76.8%	70.8%	65.4%
New Hampshire	661	91.2%	79.7%	74.1%	65.5%
New Jersey	16,484	59.5%	53.1%	49.4%	46.0%
New Mexico	1,092	85.4%	67.9%	59.4%	51.2%
New York	15,756	91.4%	80.8%	74.9%	69.0%
N. Carolina	3,166	86.0%	71.0%	61.3%	53.4%
N. Dakota	419	77.1%	57.5%	47.7%	37.5%
Ohio	7,383	91.5%	79.9%	72.0%	65.4%
Oklahoma	2,837	78.6%	61.7%	53.7%	47.2%
Oregon	3,822	89.6%	78.2%	71.2%	64.7%
Pennsylvania	13,448	89.3%	76.6%	69.8%	63.1%
Rhode Island	1,703	86.1%	69.6%	62.4%	55.5%
S. Carolina	6,429	77.5%	57.2%	47.1%	38.9%
S. Dakota	413	78.0%	54.0%	42.6%	34.9%
Tennessee	2,811	94.6%	81.8%	74.5%	65.2%
Texas	14,339	87.3%	74.2%	67.8%	62.2%
Utah	910	87.8%	73.8%	67.3%	61.2%
Vermont	379	77.6%	63.6%	54.4%	45.1%
Virginia	5,100	90.5%	78.2%	71.5%	65.2%
Washington	7,049	94.2%	85.7%	80.5%	75.7%
W. Virginia	1,640	75.4%	58.1%	53.4%	47.5%
Wisconsin	2,837	88.4%	74.5%	66.1%	58.9%
Wyoming	210	81.9%	62.4%	54.3%	46.7%

Appendix Table E-2: Percent of Title III Terminees with Annualized Earnings Above the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

		Before Adjustment		After Adjustment	
	Number of Terminees	Percent	Rank	Percent	Rank
U.S. Total	247,139	86.0%		86.0%	
Alabama	3,099	72.5%	50	80.6%	44
Alaska	418	92.6%	7	87.3%	29
Arizona	4,274	90.5%	16	91.1%	11
Arkansas	2,420	74.7%	48	83.3%	42
California	31,595	89.9%	17	86.7%	31
Colorado	5,301	92.6%	8	93.4%	5
Connecticut	3,656	94.3%	3	91.5%	10

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Delaware	405	81.5%	38	84.7%	39
D.C.	265	97.4%	1	96.2%	1
Florida	9,779	86.1%	26	86.0%	36
Georgia	10,808	85.9%	30	89.3%	18
Hawaii	881	81.7%	37	73.9%	49
Idaho	1,030	84.5%	34	87.6%	27
Illinois	13,558	89.2%	21	89.1%	19
Indiana	4,262	93.2%	6	95.2%	3
Iowa	2,130	80.8%	39	86.5%	33
Kansas	1,331	83.3%	35	88.1%	24
Kentucky	2,757	84.8%	33	90.4%	14
Louisiana	3,835	77.9%	43	83.2%	43
Maine	2,027	85.4%	32	79.1%	48
Maryland	6,366	91.0%	13	91.0%	12
Massachusetts	7,804	94.1%	5	90.3%	16
Michigan	7,220	86.0%	29	85.9%	37
Minnesota	2,698	91.8%	9	92.7%	7
Mississippi	4,383	74.4%	49	83.3%	41
Missouri	3,215	86.1%	25	86.1%	35
Montana	1,005	89.6%	19	93.9%	4
Nebraska	382	80.6%	40	86.4%	34
Nevada	1,347	91.0%	14	92.1%	9
New Hampshire	661	91.2%	12	87.9%	26
New Jersey	16,484	59.5%	51	56.2%	51
New Mexico	1,092	85.4%	31	88.6%	20
New York	15,756	91.4%	11	88.5%	21
N. Carolina	3,166	86.0%	28	88.0%	25
N. Dakota	419	77.1%	46	85.7%	38
Ohio	7,383	91.5%	10	93.1%	6
Oklahoma	2,837	78.6%	41	84.3%	40
Oregon	3,822	89.6%	18	88.3%	22
Pennsylvania	13,448	89.3%	20	87.4%	28
Rhode Island	1,703	86.1%	27	80.5%	45
S. Carolina	6,429	77.5%	45	79.9%	46
S. Dakota	413	78.0%	42	86.9%	30
Tennessee	2,811	94.6%	2	96.1%	2
Texas	14,339	87.3%	24	89.9%	17
Utah	910	87.8%	23	88.1%	23
Vermont	379	77.6%	44	73.4%	50
Virginia	5,100	90.5%	15	90.4%	15
Washington	7,049	94.2%	4	92.4%	8
W. Virginia	1,640	75.4%	47	79.6%	47
Wisconsin	2,837	88.4%	22	90.5%	13
Wyoming	210	81.9%	36	86.7%	32

Appendix Table E-3: Percent of Title III Terminees with Annualized Earnings Above 1.33 Times the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
U.S. Total	247,139	73.2%		72.8%	
Alabama	3,099	51.1%	51	63.0%	45
Alaska	418	84.2%	5	73.9%	27
Arizona	4,274	78.4%	15	79.7%	11
Arkansas	2,420	53.4%	48	65.4%	43
California	31,595	79.1%	14	73.1%	28
Colorado	5,301	83.3%	6	84.4%	4
Connecticut	3,656	86.1%	2	82.1%	8
Delaware	405	66.2%	35	71.1%	34
D.C.	265	91.7%	1	87.2%	2
Florida	9,779	70.4%	27	69.2%	38
Georgia	10,808	68.3%	29	75.4%	23
Hawaii	881	64.5%	37	55.3%	49
Idaho	1,030	68.3%	30	74.2%	25
Illinois	13,558	76.5%	21	75.8%	22
Indiana	4,262	82.8%	7	86.5%	3
Iowa	2,130	62.8%	40	71.4%	33
Kansas	1,331	67.8%	33	76.5%	18
Kentucky	2,757	66.2%	36	78.0%	16
Louisiana	3,835	59.3%	43	66.5%	42
Maine	2,027	67.2%	34	58.4%	48
Maryland	6,366	79.9%	12	79.9%	10
Massachusetts	7,804	85.6%	4	78.3%	13
Michigan	7,220	72.3%	25	71.5%	32
Minnesota	2,698	81.5%	9	83.6%	6
Mississippi	4,383	52.0%	50	68.0%	40
Missouri	3,215	67.9%	31	68.0%	41
Montana	1,005	77.1%	18	83.9%	5
Nebraska	382	63.1%	39	70.4%	35
Nevada	1,347	76.8%	19	78.0%	15
New Hampshire	661	79.7%	13	74.1%	26
New Jersey	16,484	53.1%	49	46.5%	51
New Mexico	1,092	67.9%	32	72.3%	31
New York	15,756	80.8%	10	76.1%	19
N. Carolina	3,166	71.0%	26	72.5%	30
N. Dakota	419	57.5%	45	69.5%	37
Ohio	7,383	79.9%	11	81.6%	9
Oklahoma	2,837	61.7%	42	69.5%	36
Oregon	3,822	78.2%	16	76.0%	20
Pennsylvania	13,448	76.6%	20	72.6%	29

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Rhode Island	1,703	69.6%	28	62.2%	46
S. Carolina	6,429	57.2%	46	59.5%	47
S. Dakota	413	54.0%	47	68.5%	39
Tennessee	2,811	81.8%	8	88.4%	1
Texas	14,339	74.2%	23	78.2%	14
Utah	910	73.8%	24	75.8%	21
Vermont	379	63.6%	38	54.4%	50
Virginia	5,100	78.2%	17	77.2%	17
Washington	7,049	85.7%	3	82.3%	7
W. Virginia	1,640	58.1%	44	65.1%	44
Wisconsin	2,837	74.5%	22	78.3%	12
Wyoming	210	62.4%	41	74.3%	24

Appendix Table E-4: Percent of Title III Terminees with Annualized Earnings Above 1.50 Times the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
U.S. Total	247,139	66.5%		65.1%	
Alabama	3,099	42.4%	50	51.9%	46
Alaska	418	80.6%	3	67.7%	23
Arizona	4,274	72.5%	14	73.0%	11
Arkansas	2,420	44.6%	48	54.8%	44
California	31,595	73.3%	12	64.8%	26
Colorado	5,301	77.5%	6	79.5%	3
Connecticut	3,656	82.2%	2	76.4%	6
Delaware	405	57.8%	35	62.0%	36
D.C.	265	87.2%	1	74.0%	9
Florida	9,779	62.8%	26	62.7%	32
Georgia	10,808	60.5%	29	65.6%	25
Hawaii	881	57.0%	38	45.2%	49
Idaho	1,030	59.5%	32	66.7%	24
Illinois	13,558	69.8%	21	69.5%	17
Indiana	4,262	76.0%	8	80.1%	1
Iowa	2,130	55.3%	39	62.8%	30
Kansas	1,331	59.8%	31	69.0%	18
Kentucky	2,757	57.4%	36	67.8%	22
Louisiana	3,835	51.1%	44	57.8%	41
Maine	2,027	58.5%	34	45.2%	48
Maryland	6,366	73.0%	13	73.0%	10
Massachusetts	7,804	80.3%	5	70.8%	15

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	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Michigan	7,220	64.2%	25	64.1%	27
Minnesota	2,698	76.4%	7	78.2%	4
Mississippi	4,383	41.8%	51	58.5%	40
Missouri	3,215	60.3%	30	60.3%	38
Montana	1,005	70.5%	19	77.1%	5
Nebraska	382	57.1%	37	62.0%	35
Nevada	1,347	70.8%	18	72.5%	12
New Hampshire	661	74.1%	11	62.2%	34
New Jersey	16,484	49.4%	45	41.4%	50
New Mexico	1,092	59.4%	33	63.4%	29
New York	15,756	74.9%	9	67.9%	21
N. Carolina	3,166	61.3%	28	62.8%	31
N. Dakota	419	47.7%	46	59.2%	39
Ohio	7,383	72.0%	15	74.7%	8
Oklahoma	2,837	53.7%	42	60.9%	37
Oregon	3,822	71.2%	17	68.1%	20
Pennsylvania	13,448	69.8%	20	64.1%	28
Rhode Island	1,703	62.4%	27	52.2%	45
S. Carolina	6,429	47.1%	47	50.1%	47
S. Dakota	413	42.6%	49	56.2%	43
Tennessee	2,811	74.5%	10	79.8%	2
Texas	14,339	67.8%	22	71.2%	13
Utah	910	67.3%	23	69.0%	19
Vermont	379	54.4%	40	38.3%	51
Virginia	5,100	71.5%	16	71.2%	14
Washington	7,049	80.5%	4	76.1%	7
W. Virginia	1,640	53.4%	43	57.3%	42
Wisconsin	2,837	66.1%	24	69.9%	16
Wyoming	210	54.3%	41	62.4%	33

Appendix Table E-5: Percent of Title III Terminees with Annualized Earnings Above 1.65 Times the Poverty Line, Before and After Adjusting for Cost of Living, SPIR 1996

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
U.S. Total	247,139	60.1%		58.3%	
Alabama	3,099	35.6%	49	44.7%	45
Alaska	418	74.4%	5	62.0%	19
Arizona	4,274	66.1%	12	66.2%	11
Arkansas	2,420	36.1%	48	46.6%	43
California	31,595	67.6%	10	58.9%	26
Colorado	5,301	72.4%	6	73.1%	3

	Number of Terminees	Before Adjustment Percent	Rank	After Adjustment Percent	Rank
Connecticut	3,656	78.6%	1	71.4%	6
Delaware	405	49.4%	35	53.6%	35
D.C.	265	77.0%	2	66.4%	9
Florida	9,779	55.0%	27	53.0%	38
Georgia	10,808	52.5%	29	60.2%	24
Hawaii	881	50.7%	34	39.7%	48
Idaho	1,030	50.9%	33	59.4%	25
Illinois	13,558	63.6%	20	61.4%	20
Indiana	4,262	69.1%	8	73.4%	2
Iowa	2,130	46.6%	42	57.0%	30
Kansas	1,331	51.4%	31	63.0%	17
Kentucky	2,757	49.0%	36	60.8%	22
Louisiana	3,835	44.2%	45	50.8%	41
Maine	2,027	49.0%	37	36.8%	50
Maryland	6,366	66.4%	11	66.3%	10
Massachusetts	7,804	75.6%	4	63.2%	15
Michigan	7,220	56.7%	25	55.4%	32
Minnesota	2,698	71.0%	7	72.6%	5
Mississippi	4,383	34.1%	51	48.9%	42
Missouri	3,215	51.9%	30	51.9%	40
Montana	1,005	64.6%	19	72.9%	4
Nebraska	382	48.4%	38	57.6%	27
Nevada	1,347	65.4%	15	65.8%	12
New Hampshire	661	65.5%	13	53.4%	36
New Jersey	16,484	46.0%	43	37.3%	49
New Mexico	1,092	51.2%	32	55.4%	31
New York	15,756	69.0%	9	61.1%	21
N. Carolina	3,166	53.4%	28	54.0%	33
N. Dakota	419	37.5%	47	52.0%	39
Ohio	7,383	65.4%	14	66.5%	8
Oklahoma	2,837	47.2%	40	54.0%	34
Oregon	3,822	64.7%	18	60.7%	23
Pennsylvania	13,448	63.1%	21	57.5%	28
Rhode Island	1,703	55.5%	26	44.5%	46
S. Carolina	6,429	38.9%	46	39.9%	47
S. Dakota	413	34.9%	50	46.0%	44
Tennessee	2,811	65.2%	17	74.5%	1
Texas	14,339	62.2%	22	65.5%	13
Utah	910	61.2%	23	62.6%	18
Vermont	379	45.1%	44	30.6%	51
Virginia	5,100	65.2%	16	63.6%	14
Washington	7,049	75.7%	3	68.8%	7
W. Virginia	1,640	47.5%	39	53.4%	37
Wisconsin	2,837	58.9%	24	63.0%	16
Wyoming	210	46.7%	41	57.1%	29

Appendix Table E-6: Percent of Title III Terminees with Annualized Earnings Above the Poverty Line, Before Adjusting for Cost of Living, by Number of Dependents, SPIR 1996

	None	One	Two	Three	Four	Five or More
U.S. Total	92.8%	85.8%	77.9%	58.6%	40.6%	27.2%
Alabama	90.2%	71.5%	54.0%	30.1%	8.9%	6.7%
Alaska	98.6%	94.1%	82.9%	83.3%	57.1%	75.0%
Arizona	96.0%	89.4%	80.0%	61.7%	34.0%	40.0%
Arkansas	92.2%	73.8%	59.2%	34.8%	14.8%	0.0%
California	96.5%	91.0%	83.7%	62.9%	38.2%	28.5%
Colorado	97.5%	92.8%	88.3%	66.2%	44.9%	53.3%
Connecticut	97.2%	92.6%	91.6%	80.4%	68.6%	50.0%
Delaware	94.7%	76.2%	68.0%	60.0%	12.5%	0.0%
D.C.	98.1%	100.0%	85.0%	100.0%	100.0%	100.0%
Florida	93.9%	83.2%	70.0%	43.4%	35.4%	9.7%
Georgia	94.8%	83.7%	70.3%	44.8%	29.9%	14.3%
Hawaii	92.0%	90.3%	82.5%	50.6%	42.6%	25.0%
Idaho	91.3%	86.0%	76.7%	66.7%	54.5%	53.8%
Illinois	94.9%	89.8%	85.6%	67.5%	51.6%	32.4%
Indiana	96.7%	95.1%	85.8%	75.3%	56.1%	53.8%
Iowa	91.0%	84.6%	73.8%	54.5%	57.1%	3.3%
Kansas	94.2%	90.0%	78.7%	61.0%	38.3%	47.8%
Kentucky	95.3%	84.2%	75.6%	51.4%	25.0%	0.0%
Louisiana	94.5%	75.2%	60.0%	33.3%	19.4%	5.6%
Maine	92.6%	84.8%	78.0%	48.0%	11.1%	66.7%
Maryland	96.0%	89.4%	84.2%	70.0%	52.8%	32.1%
Massachusetts	98.0%	93.2%	90.3%	83.2%	74.4%	39.0%
Michigan	93.5%	88.7%	81.8%	64.2%	37.3%	20.5%
Minnesota	95.3%	89.7%	90.2%	75.6%	64.9%	75.0%
Mississippi	92.1%	72.1%	54.9%	28.4%	15.4%	2.9%
Missouri	95.5%	86.8%	79.9%	51.2%	21.1%	10.3%
Nebraska	90.3%	81.9%	80.6%	43.3%	36.4%	20.0%
Nevada	97.4%	93.4%	87.1%	53.3%	29.6%	37.5%
New Hampshire	96.4%	92.1%	84.7%	54.5%	25.0%	0.0%
New Jersey	61.5%	61.2%	55.2%	46.3%	28.4%	16.1%
New Mexico	95.2%	86.8%	75.1%	63.9%	40.9%	11.1%
New York	96.6%	90.3%	80.7%	63.8%	47.8%	31.3%
N. Carolina	94.8%	83.2%	69.0%	41.8%	25.7%	11.1%
N. Dakota	86.8%	80.3%	71.7%	41.7%	33.3%	50.0%
Ohio	97.0%	92.0%	87.3%	67.9%	46.7%	32.6%
Oklahoma	90.3%	76.8%	69.2%	40.7%	28.8%	16.7%
Oregon	95.8%	89.5%	82.2%	65.9%	42.9%	37.5%
Pennsylvania	94.4%	88.0%	80.2%	61.3%	39.8%	32.1%
Rhode Island	92.8%	89.3%	77.5%	58.2%	33.3%	0.0%
S. Carolina	93.1%	77.9%	64.6%	36.8%	14.5%	6.9%

	None	One	Two	Three	Four	Five or More
S. Dakota	92.0%	78.4%	67.1%	51.2%	30.0%	0.0%
Tennessee	95.6%	87.9%	77.1%	45.8%	42.9%	0.0%
Texas	95.7%	88.7%	78.2%	57.6%	42.7%	27.5%
Utah	96.9%	94.2%	87.5%	71.3%	67.2%	61.4%
Vermont	88.1%	77.5%	63.6%	52.2%	16.7%	0.0%
Virginia	95.4%	89.3%	78.9%	61.2%	50.0%	50.0%
Washington	97.5%	94.8%	90.2%	84.3%	76.6%	56.9%
W. Virginia	89.1%	68.8%	55.9%	28.6%	25.0%	50.0%
Wisconsin	95.4%	89.8%	85.3%	63.8%	47.9%	17.2%
Wyoming	91.5%	83.3%	68.8%	46.2%	0.0%	

Appendix Table E-7: Percent of Title III Terminees with Annualized Earnings Above the Poverty Line, After Adjusting for Cost of Living, by Number of Dependents, SPIR 1996

	None	One	Two	Three	Four	Five or More
U.S. Total	92.4%	86.5%	78.9%	57.1%	40.2%	26.7%
Alabama	93.9%	84.4%	66.8%	40.2%	16.1%	13.3%
Alaska	96.8%	86.8%	77.1%	66.7%	42.9%	75.0%
Arizona	96.0%	89.4%	85.4%	61.7%	34.0%	40.0%
Arkansas	94.5%	89.0%	74.3%	47.8%	19.7%	6.3%
California	94.9%	87.2%	79.3%	50.5%	29.6%	23.5%
Colorado	97.6%	94.0%	91.6%	66.9%	44.9%	53.3%
Connecticut	95.1%	91.0%	86.9%	75.0%	54.3%	25.0%
Delaware	95.7%	78.6%	74.7%	70.0%	25.0%	0.0%
D.C.	97.6%	93.3%	85.0%	100.0%	100.0%	100.0%
Florida	93.8%	83.2%	69.9%	43.4%	35.4%	9.7%
Georgia	95.8%	91.1%	77.8%	51.7%	38.8%	28.6%
Hawaii	88.6%	80.0%	70.6%	36.8%	31.9%	15.0%
Idaho	92.9%	89.8%	81.9%	72.0%	63.6%	53.8%
Illinois	94.8%	89.7%	85.5%	67.2%	51.2%	32.4%
Indiana	97.6%	97.1%	90.6%	81.9%	61.4%	53.8%
Iowa	93.7%	89.8%	83.3%	65.9%	73.5%	10.0%
Kansas	95.5%	94.6%	86.0%	73.8%	48.3%	47.8%
Kentucky	97.0%	91.1%	86.5%	64.7%	40.0%	0.0%
Louisiana	96.4%	84.6%	67.8%	45.0%	29.2%	8.3%
Maine	89.4%	76.7%	66.0%	30.4%	7.4%	66.7%
Maryland	96.0%	89.3%	84.0%	70.0%	52.8%	32.1%
Massachusetts	95.7%	90.9%	84.7%	70.8%	57.1%	29.3%
Michigan	93.5%	88.7%	81.8%	64.2%	37.3%	20.5%
Minnesota	95.8%	91.0%	92.5%	75.6%	64.9%	75.0%
Mississippi	95.1%	86.8%	72.8%	42.4%	26.9%	5.7%
Missouri	95.5%	86.8%	79.9%	51.2%	21.1%	10.3%

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	None	One	Two	Three	Four	Five or More
Montana	98.7%	95.7%	93.3%	79.2%	54.8%	66.7%
Nebraska	93.5%	89.2%	86.6%	60.0%	45.5%	20.0%
Nevada	97.4%	95.6%	89.6%	57.3%	37.0%	37.5%
New Hampshire	95.4%	89.5%	74.5%	42.4%	0.0%	0.0%
New Jersey	59.8%	56.0%	49.3%	34.3%	15.5%	12.6%
New Mexico	96.3%	91.5%	81.0%	68.7%	40.9%	33.3%
New York	95.0%	86.7%	76.0%	50.8%	40.4%	25.0%
N. Carolina	94.9%	86.6%	77.2%	45.1%	28.6%	11.1%
N. Dakota	90.7%	86.8%	84.8%	66.7%	55.6%	50.0%
Ohio	97.1%	93.3%	90.8%	76.4%	54.2%	39.1%
Oklahoma	92.8%	85.8%	78.6%	51.3%	32.2%	33.3%
Oregon	94.9%	88.7%	80.9%	59.1%	41.4%	33.3%
Pennsylvania	93.2%	86.2%	77.4%	52.0%	36.1%	26.4%
Rhode Island	89.4%	82.4%	66.3%	50.0%	28.6%	0.0%
S. Carolina	93.3%	81.1%	70.6%	40.6%	16.9%	6.9%
S. Dakota	95.5%	87.8%	84.7%	68.3%	40.0%	0.0%
Tennessee	96.9%	90.9%	82.9%	58.3%	42.9%	0.0%
Texas	96.6%	91.8%	83.7%	63.3%	50.0%	32.1%
Utah	96.9%	94.2%	88.6%	71.3%	68.9%	61.4%
Vermont	85.6%	71.8%	59.7%	39.1%	0.0%	0.0%
Virginia	95.3%	89.0%	78.9%	61.2%	50.0%	50.0%
Washington	96.7%	92.8%	88.4%	77.4%	72.3%	52.9%
W. Virginia	90.6%	78.5%	62.7%	31.4%	29.2%	50.0%
Wisconsin	96.5%	91.7%	88.4%	69.4%	56.3%	20.7%
Wyoming	94.1%	83.3%	79.2%	61.5%	0.0%	------

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33. Current procedures of HUD now utilize the rent at the 40th percentile of the distribution.

34. The East South Central Region includes the states of Alabama, Kentucky, Mississippi, and Tennessee. See: Citro and Michael, *Measuring Poverty*, pp. 196-197.

35. The .44 weight for housing and shelter was derived in the following manner by the Panel on Poverty and Family Assistance. The Consumer Expenditure surveys for 1988-89 were examined to identify the expenditures of four person families containing two adults and two children. The consumption behavior of the family at the 35th percentile of the expenditures distribution was examined. Total expenditures on food, housing including utilities, and clothing were estimated and multiplied by 1.15 to include purchases of other items by a low income family. The share of expenditures on housing and utilities as a percent of this estimated budget was found to be equal to 44%.

36. The March CPS household survey includes interviews with approximately 47,000 households across the nation, including a representative sample of households in each of the 50 states and the District of Columbia. For further details on the design features of the CPS survey, See: U.S. Bureau of Labor Statistics, *Employment and Earnings*, January 1998, Washington, D.C., 1998.

37. In a married couple family, the householder can be either the husband or the wife.

38. See: Andrew Sum, Cliff Johnson and Neal Fogg, "Young Workers, Young Families and Child Poverty," in *Of Heart and Mind*, (Editors: Garth Mangum and Stephen Mangum), W.E. Upjohn Institute for Employment Research, Kalamazoo, 1996.

39. The lower rate of poverty among families whose head did not work at all during the year may seem somewhat surprising, but is influenced by the inclusion of elderly families who rely on Social Security benefits and other types of retirement income to support themselves. Excluding all elderly families with a householder 65 and older from the calculations yields 1991 poverty rates of 45% for those with no weeks of employment and 35% for those with 1-26 weeks of work experience.

40. See: S. Anna Kondratas, `The Problems of Measuring Poverty,' In *Economics 86/87* (Editors: Reuben Slesinger and Glen Beeson), The Dushkin Publishing Group, Guilford, Connecticut, 1987, pp. 86-94; Charles Murray, "The War on Poverty: 1965-1980," *The Wilson Quarterly*, Autumn 1984, pp. 94-136; Andrew Sum, Neeta Fogg, et. al., *The State of the American Dream in New England*, The Massachusetts Institute for a New Commonwealth, Boston, 1996.

41. During 1993, the U.S. Congress passed legislation that increased the size of the Earned Income Tax Credits and liberalized eligibility for such benefits. By 1998, a family with two eligible children would be able to receive up to a maximum of $3,756 in tax credits. The size of these credits does, however, vary with the level of one's income and the number of eligible dependent children.

42. The fungible value of Medicare and Medicaid benefits is based on the amount of income received by the family, the estimated costs of meeting the family's food and housing needs, and the estimated market value of the medical

benefits provided by the program. If the family's income is not high enough to cover the food and housing expenditures, then the U.S. Census Bureau assigns that family a fungible value of zero for such benefits.

43. The U.S. Census Bureau also provides a range of income estimates for families, taking into account a diverse array of in-kind benefits and taxes as well as capital gains, the imputed rental income from owner occupied homes, and health insurance benefits. See: U.S. Bureau of the Census, Current Population Reports, p. 60-193, *Money Income in the United States, 1995 (With Separate Data on Valuation of Noncash Benefits)*, U.S. Government Printing Office, Washington, D.C., 1996.

44. The combined marginal tax rate on a family of four can become very high at a relatively low income level. For example, such a family will start paying a marginal federal income tax rate of 15% when its gross adjusted income reaches above $17,900, it will lose 21 cents in Earned Income Tax Credits for every additional dollar of earned income, it will pay nearly 8 cents in Social Security payroll taxes, and, if it resides in a state with its own income tax such as Massachusetts, it will pay an additional 6 cents in state income tax. The combined marginal tax rate for incomes between $17,900 and $31,000 is, thus, equivalent to 50 per cent.

45. See: i) Barnow, Burt S., "The Impact of CETA Programs on Earnings", *The Journal of Human Resources*, Volume 22, Number 2, Spring 1987, pp. 157-193; ii) Bloom, Howard S. and Maureen McLaughlin, *CETA Training Programs: Do They Work for Adults?*, CBO/NCEP, Washington, D.C., 1982.

46. See: (I) Bloom, Howard S.; Orr, Larry L. et. al., *The National JTPA Study: Overview, Impacts, Benefits, and Costs of JTPA Title II-A*, Abt Associates, Inc., Bethesda, Maryland, 1994; (ii) Orr, Larry L.; Bloom, Howard S. et. al., *Does Training for the Disadvantaged Work? Evidence from the National JTPA Study*, The Urban Institute Press Washington, D.C., 1995.

47. Mangum, Garth; Mangum, Stephen; Sum, Andrew; Callahan, James, and Neal Fogg, *A Second Chance for the Fourth Chance: A Critique of the Workforce Investment Act of 1998*, Policy Issues Monograph 99-01, Sar Levitan Center for Social Policy Studies, Institute for Policy Studies, Johns Hopkins University, Baltimore, MD, January 1999.

48. For the past few years, the U.S. Department of Labor has published a volume of statistical findings from the SPIR system. The most recent volume is titled *Job Training Partnership Act: 1996 Program Statistics* and is produced by Social Policy Research Associates, Inc. Data books for individual states are also available from the Department of Labor, and are included in PDF form on the public use CD containing the SPIR data.

49. The information here is derived from *An Overview of PY94 SPIR Public Use Data Files*, a file provided on the public use CD.

50. Nationally, approximately 66 percent of the terminees from Title II-A programs and 71 percent of terminees from Title III programs were employed at the time of termination from local JTPA systems.

51. Between 1994 and 1996, the national CPI-U index rose from 148.2 to 156.9, a gain of nearly 6 percent.

52. Orr, Larry L.; Bloom, Howard S. et. al., *Does Training for the Disadvantaged Work? Evidence from the National JTPA Study*, The Urban Institute Press, Washington, D.C., 1995.

53. U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, January 1998, Table 37, p. 208.

54. While the SPIR system does not contain any variables capturing actual years of prior work experience for individual participants, there is a variable identifying whether terminees `lack significant work history', a variable defined as not having worked for the same employer for more than three consecutive months in the two years prior to application. In PY96, approximately 37 percent of Title II-A terminees lacked significant work history, compared to under 4 percent of Title III terminees.

55. The earnings data for Title III terminees from New Jersey are suspect being well below expectations.

56. The cost of living adjustment factors for Alaska and Hawaii were derived from the U.S. Department of Health and Human Services rather than through the NRC methodology. We also relied on the NRC's cost of living estimate for New Jersey (120.3) rather than the estimate we obtained via use of the slightly modified version of their proposed methodology. However, the earnings data for JTPA Title III from New Jersey are suspect, being well below expectations. See: Citro and Michael, *Measuring Poverty*.

57. Many national evaluations of welfare-to-work programs have used the wage records in estimating earnings impacts of such programs. Some state and local JTPA systems also have used such data for analyzing the longer-term earnings experiences of the terminees. See: Andrew M. Sum and W. Neal Fogg, *The Long-Term Post Program Employment and Earnings Experience of JTPA Title III and II A Terminees in Massachusetts: Findings from the Placement Accountability System*, Center for Labor Market Studies, Northeastern University, Boston, April 1998; (b) Jeff Thompson, "The JTPA Impact: A Study Using UI Wage Records," *Workforce 10*, State of Washington, Summer 1998.

58. Citro and Michael, op.cit.

59. See: American Chamber of Commerce Research Association, *ACCRA Cost of Living Index, Third Quarter 1996*, Lexington, KY, 1996.

60. The base unit of comparison is a "two bedroom apartment that had complete plumbing facilities, electricity, kitchen facilities and in which the occupant had moved in within the past five years." The entire distribution of market rents for such housing in a local area was used to identify the fair market rent, which according to HUD standards in 1990 was the rent at the 45th percentile.

61. In some cases, the specific metropolitan area of residence for a sample respondent on the March CPS 1996 survey was not identified by the U.S. Census Bureau to maintain confidentiality in the data. When such cases were found, they were assigned the cost-of-housing adjusted poverty line for the smallest metropolitan area in their geographic region.

62. See: U.S. Department of Health and Human Services, "1998 Poverty Guidelines for States," *Federal Register*, Vol. 63, No. 36, February 24, 1998.